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THE BRITISH PTERIDOLOGICAL SOCIETY

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Edited by A.M. Paul

THE BRITISH PTERIDOLOGICAL SOCIETY

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The BRITISH PTERIDOLOGICAL SOCIETY was founded in 1891 and is still a focus for fern enthusiasts, its wide membership including gardeners, nurserymen and botanists, both amateur and professional. It provides a wide range of information about ferns through its publications and website, and also organises formal and informal indoor meetings, field meetings, garden visits, a plant exchange, a spore exchange and fern book sales. The Society's journals, *The Fern Gazette*, *Pteridologist* and *Bulletin*, are published annually. *The Fern Gazette* publishes matter chiefly of specialist interest on international pteridology, the *Pteridologist*, topics of more general appeal, and the *Bulletin*, Society business and meetings reports. **Website: www.eBPS.org.uk**

Membership is open to all interested in ferns and lycophytes. **SUBSCRIPTION RATES** (due on 1st January each year) are Full Personal Members £20, Personal Members not receiving *The Fern Gazette* £16, Student Members £10, Subscribing Institutions £33. Family membership in any category is an additional £2. Applications for membership should be sent to the Membership Secretary (address above) from whom further details can be obtained. (Remittances in currencies other than Sterling are £5 extra to cover bank conversion charges.) **Airmail** postage for all journals is an extra £4, or for those not receiving *The Fern Gazette* £2.50. **Standing Order** forms are available from the Membership Secretary and the BPS website.

(**Front cover**: *Phegopteris connectilis*. Illustration from: E.J. Lowe (1874) *Our Native Ferns* (as *Polypodium phegopteris*.))

Back numbers of *The Fern Gazette*, *Pteridologist* and *Bulletin* are available for purchase from P.J. Acock, 13 Star Lane, St Mary Cray, Kent BR5 3LJ; E-mail: BackNumbers@eBPS.org.uk

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THE

BULLETIN

OF THE

BRITISH PTERIDOLOGICAL SOCIETY

Vol. 7 2010 No. 3

RETIRING PRESIDENT'S ADDRESS

Robert Sykes

(Presented before the AGM at NHM, London, 10 April 2010.)

It is one of the conventions of this Society that the retiring President addresses this general meeting. I confess that seems a little odd to me: do you want yesterday's man telling you about yesterday or tomorrow's woman talking about the future? But I was told very firmly by your officers that this is what I should do, so meekly I am doing it.

photo: courtesy R.W. Sykes

Robert Sykes in his fernhouse

I cannot be intensely forward looking – it would not be right for me to tell the next President what to do – so I must either give a personal talk not necessarily related to my appointment (disasters in my garden; a proposed revision of the cultivar classification table, that sort of thing), or I could look back over the last three years in a triumphalist or apologetic or self-justificatory sort of way, or look at the present and deliver a sort of 'state of the union' address. It's that last option I will attempt. But I have not asked for very long to do it. And you are going to get less (or you may think more) than you expect, because I still think that the next President should have a slot on this important day – and she is getting my last ten minutes.

So – what is the state of our Society in 2010? What are our strengths and our weaknesses?

First, boringly some may think, but crucially for our good health, we are financially sound, thanks to careful housekeeping over the years down to the present. Gill will tell you about it this afternoon.

Secondly, we are a society of volunteers. We have no paid executive officer to hold our affairs together. Graham Ackers makes an invaluable contact list each year of people with some formal job or appointment in the Society – currently there are 40 names on it. None of them is a passenger; all of them are working crew. It is because of their talents and their

commitment to our Society's well-being that our programmes and achievements are so much greater than one would expect from our numbers. There is an inner core – the President, the Secretary Yvonne Golding, the Committee Secretary Graham Ackers, the Treasurer Gill Smith. My gratitude to them is unbounded. Adrian Dyer referred to them as the A team when he passed me the baton, and so indeed they have proved.

Still on strengths: what else?

We publish four journals each year. Four journals for a membership of around 750! If you compare that with the output of huge societies like the RSPB or the National Trust, the enormity of it is apparent. Add to that our wide-ranging website, and the achievement is more extraordinary still.

We have an amazing programme of meetings – national, international, the local meetings run by our Regional Groups, indoor study meetings – all excellent opportunities to expand our personal knowledge, and contribute to the general knowledge base by recording, and invariably enjoyable social occasions as well.

Our Regional Groups – another strength. And thank you Brian Dockerill and Yvonne who recently started new Groups: South Wales and the Borders, and Manchester and North Midlands.

We started in 1891 as an amateur society, but we would be of little account if we were not anchored by our professional members, and I believe the professional/amateur interaction is one of our great strengths – it is certainly very rewarding for us amateurs.

There is a wealth of horticultural experience among our members. The most common way of sharing that knowledge is by direct discussion, often on garden visits. There are two new ways that Anthony Pigott has set up for us: one is the BPS Fern Forum, which is just that – a forum for exploring ferny questions, and deserves to be used more fully; Google fern forum or go to www.fernforum.net/bb/. The other is the proposed register of ferns in members' gardens, which I will come back to later on.

We have an outstanding spore exchange and I am sure some people join just to have access to it. It had been run for a good many years by Anne and Barry Wright; it was not easy to find a successor, so I was particularly grateful to Matt Busby for taking it on.

That is a glance at some of our strengths: what of our weaknesses? Well it seems to me that we have only one significant weakness, and I have referred to it obliquely already: we would be stronger and more secure if we had more members. It would give us a sounder financial base, it would give us a deeper pool in which to fish for volunteers for our many activities, and of course, most important of all, it would help fulfil what we are here for in the first place, to encourage enthusiasm for ferns. We have addressed that as best we can: we had a stand at Tatton, which recruited several new members. That was mistress-minded by Yvonne Golding and was very successful. She also ran a fern day at Manchester Museum, which was well received. We have a new education officer, Alison Evans; she and the small group working with her are looking at the opportunities both for our existing members and for potential recruits. I think those are the sort of initiatives that are most likely to lead to new membership applications. You can help too: the dream scenario is that every member recruits one new member; somehow that remains a dream, but please never ever miss an opportunity to extol the joys of membership of this very novice-friendly society and to give out a membership form – you can get it off the web if you do not have one in your pocket. And we do need a marketing and publicity officer. Alison's education subcommittee is covering some of the ground, but it would be good to pull that area of our activities together, and if there is anyone here or whom you know who might be interested in tackling some aspect then do please let me or one of us know.

I heard a whisper that we were showing some kind of northern bias. Last two presidents from Glasgow and Edinburgh, this one from Kendal, next from Edinburgh again. We have supported the restoration of the Benmore fernery, and are looking to offer some support to Arduaine, both in Scotland. We are financially supporting a list of great Scottish gardens with ferns in, we underwrote the stand at Tatton and the fern day at Manchester Museum. A persuasive case? Not really. We are keen to support any initiative anywhere that contributes to fern knowledge or encourages enthusiasm or benefits the Society in some way. As chance would have it several initiatives have been in the North. If you put on a fern day in a museum in Southampton, or set up a stall at Chelsea or Hampton Court, or have other more exciting southron ideas, I have no doubt you will find the Society is excited and supportive.

On a personal note, like the gondoliers, it has been a privilege and pleasure that I treasured beyond measure, being the President of the British Pteridological Society. Thank you. Unfortunately it has been a difficult time for me domestically – my wife is not well – so I am afraid I have not given the Society as much time as I would have liked. For example, one project that did not happen: I had hoped I might do a series of tours round the country visiting members' gardens, but sadly it was just not possible. That would have been a lot of fun for me, and I think it might have been useful for the Society to have an overview of what we are all doing. There are some wonderful collections and a huge skill-base that I believe is not as well known as it should be. It is with that same thought in mind that I suggested that it would be fascinating and useful if members were – voluntarily of course – to list the ferns they are growing, and if those lists were available within the Society. Sounds simple, but becomes more difficult when you start analysing it. Roger Golding and Anthony Pigott have been giving a lot of thought to the best database medium. It is just getting past the twinkle-in-the-eye stage and is being demonstrated today for you to look at. I hope that will prove to be a useful and enjoyable tool.

NATIONAL FIELD MEETINGS

VIDAUBAN, VAR, SOUTH-EAST FRANCE – 2-5 February

Tuesday 2nd – Nice to Vidauban

Pat Acock

Paul Ripley and I flew into Nice airport to meet up with Sébastien Sant. We picked up the car and were out in the field in no time at all. The area was experiencing the coldest times for a generation, with snow on the hills above Nice and lying on the verges around the town, the overnight temperature having fallen to -8°C. Our first stop was just east of Saint-Jean de Canne (43°31′27.1″N, 6°53′4.5″E). In this beautiful *Quercus ilex* / *Q. suber* heathland we had lunch whilst appreciating how devastating the recent summer fires must have been and how difficult it will be to remove the alien eucalypts and acacias that have invaded this coastal Mediterranean vegetation.

Driving on to a site just south-west of Saint-Jean de-l'Esterel (43°30′38.3″N, 6°49′46.7″E) we met Denis Gynouvès, Chef de District Forestier Principal, who was to accompany us for the next two and a half days. Denis led us up a stream in mixed oak woodland where we encountered *Pteridium aquilinum*, *Asplenium onopteris*, *Polystichum setiferum*, *P. aculeatum*, *Dryopteris affinis*, *D. cambrensis* and *D. filix-mas*. *Blechnum spicant*, which is scarce in the region and *Osmunda regalis*, increasingly common in the area, were also seen.

Close to sunset we parked further on at a pull-in at another very special Var habitat – sandy heathland dotted with slabs of siliceous Permian sandstone known locally as dolles de grés – at Le Bois de Rouquan (43°21′32.4″N, 6°26′29.4″E). On this flat plain of pink sedimentary rock we saw *Asplenium trichomanes*, *A. ceterach*, *A. septentrionale*, *A. onopteris*, *A. obovatum* subsp. *lanceolatum*, *Anogramma leptophylla*, *Ophioglossum lusitanicum* and *Selaginella*

dentata. *Isoetes duriei* was seen in shallow ponds in the rock. As the sun set we found *I. velata* in similar ponds beside a river one kilometre up the road (43°21′19.7″N, 6°26′2.1″E).

Moving on to Hotel 7 in Vidauban we met up with Rémy and Annie Prelli and Pascal Holvec to complete the group. We went into town for a pleasant meal and discussed the possibilities for the days ahead.

Wednesday 3rd **Paul Ripley**

Roquebrune is an isolated massif about 350 metres in height, a few kilometres from Vidauban and lying in the plain between the coastal hills and the limestone 'Pre-Alps'. Looking like an extinct volcano, it is in fact entirely composed of sedimentary conglomerate. It is home to a special flora, including the micro-endemic *Viola roccabrunensis*. We were joined by Denis Gynouvès who, like Pascal, works for the Office National des Forêts.

We started from La Haute Rouquaire (43°26′53.3″N, 6°35′39.6″E), where *Ophioglossum lusitanicum* was growing in the short turf and was not frosted like the plants we had seen the previous day. Climbing through the shrub and evergreen oaks, *Quercus suber* and *Q. ilex*, we noted *Polypodium cambricum*, *Anogramma leptophylla*, *Selaginella denticulata*, *Asplenium onopteris*, *A. obovatum* subsp. *lanceolatum* and *A. trichomanes*, assumed to be subsp. *quadrivalens*. Higher up, in crevices between more exposed rocks, we saw *Notholaena marantae*, and *Cheilanthes tinaei* with its very characteristic red-brown glandular hairs.

We then spent some time searching on steep rock-faces where some interesting aspleniums grew. We found *Asplenium foreziense* (the allotetraploid formed originally from a cross between *A. fontanum* and *A. obovatum* subsp. *obovatum*), *A. obovatum* subsp. *obovatum* and the triploid hybrid *A.* × *krameri* (*A. foreziense* × *A. obovatum* subsp. *obovatum*). Apart from the narrower fronds of *A. foreziense*, these are distinguished principally by the shape of the pinnule teeth and the dividing sinuses – difficult!

Around Vidauban is a fascinating heath, which is wet in winter, with temporary streams and pools, but bone-dry in summer. Stopping at Catchéou (43°30′07.0″N, 6°36′15.0″E), we saw *Selaginella denticulata*, and *Ranunculus ophioglossifolium* – known from only one locality in Britain, but not the *Isoetes velata* that we had come to look for. Probably the water here was too deep. Impending darkness forced our return to Vidauban.

Thursday 4th **Rémy Prelli**

photo: A. Prelli

Pat Acock, Paul Ripley & Rémy Prelli above Toulon, Var, France

This third day was devoted to limestone rocks around Toulon. After a fairly labyrinthine passage through the outskirts of the town, we met up again with Henri Michaud from the Conservatoire Botanique National Méditerranéen, Yves Morvant and Nicolas Crouzet at the foot of the Baou de Quatre-Aures (43°09′36.3″N, 5°53′50.9″E), a collection of exposed limestone cliffs to the south of and overlooking Toulon. A path through a Mediterranean habitat of *Quercus ilex*, *Q. coccifera* and *Pinus halepensis* led us to the base of rocky bluffs where we found a beautiful population of *Asplenium petrarchae*. The dryness in summer is scarcely favourable to ferns; only odd plants of *Asplenium trichomanes* subsp. *quadrivalens*, *A. ruta-muraria*, *A. ceterach* and *Polypodium cambricum* were seen in the

less exposed places. A little below the main promontory, our colleagues took us to see *Asplenium* × *helii* nothosubsp. *lainzii*, the tetraploid hybrid between *A. petrarchae* subsp. *petrarchae* and *A. trichomanes* subsp. *quadrivalens*, recently discovered in a shaded fissure, as well as a small colony of *Cheilanthes acrostica*. Apart from ferns, we noted the presence of the juniper *Juniperus phoenicea* on the cliff, as well as the first flowering of *Narcissus dubius* and the orchid *Himantoglossum robertianum* (*Barlia robertiana*), all much appreciated in pleasant sunshine.

In more cloudy conditions, we drove in the afternoon 25km to the north of Toulon to the crest of the mountain of La Loube, which overlooks the village of La Roquebrussanne (43°22′05.1″N, 5°59′31.4″E). At about 800 metres altitude, under a mixed cover of *Quercus ilex* and *Q. pubescens* characteristic of the sub-mediterranean habitat type, great blocks of dolomitic limestone sheltered an abundance of spleenworts: *Asplenium fontanum*, *A. ceterach*, *A. ruta-muraria*, and several forms of *A. trichomanes* which were the main reason for our visit here. Besides plants typical of subsp. *quadrivalens*, smaller plants with a broad terminal pinnule corresponded to subsp. *inexpectans*, a rare calcicolous diploid recently discovered here by Sébastien and whose identity has been confirmed by Ronnie Viane using flow cytometry. Several plants with a morphology more or less suggestive of subsp. *hastatum* stimulated discussion without any firm conclusion being reached. After a group photo on the summit, the rain that had been threatening drove us back to our cars and reminded us that winter in the Mediterranean is not always sunny.

photo: S. Sant

Top of La Loube, Var, France

Paul Ripley, Rémy Prelli, Denis Gynouvès, Pascal Holveck, Annie Prelli, Sébastien Sant (*in front*), Nicolas Crouzet, Pat Acock, Henri Michaud

Friday 5th **Annie Prelli**

We had planned to go to one of the Hyères Islands, Porquerolles, and see the western Mediterranean endemic *Asplenium balearicum*, but heavy rain in the morning made us change our plans, and we decided to go to Marseille instead.

The morning was then spent at the Mont Rose (43°13′53.5″N, 5°21′16.5″E), which is a calcareous area with impressive cliffs. In the northern steep rock-face of the Mont Rose, in shaded crevices, grows the rare *Asplenium sagittatum*. Sébastien showed us a few clumps, rather high up but everybody was able to see them. On the same spot, only this time at the bottom part, were growing two nice plants already in bloom: *Astragalus massiliensis* and *Himantoglossum robertianum*. Shortly afterwards the wind blew away the clouds enabling us to enjoy the beautiful scenery. After this long stop, we drove a little further to the Calanques and enjoyed a local lunch in a good 'restaurant marseillais'.

The afternoon was sunny, so, on the way back to Vidauban, we stopped at Le Cannet-des-Maures (43°23′19.4″N, 6°23′31.2″E) and saw *Isoetes histrix* in small flooded dips under parasol pines (*Pinus pinea*).

Our last site was the Lac des Aurèdes, in the late afternoon. We stopped briefly because the water was too deep once more and we could not see *Isoetes velata*. We left at nightfall and since it had probably rained more here than in Marseille, 'mud' and 'pond' seemed the best words to describe our way by car along the endless tracks through the Massif des Maures. We let out a sigh of relief when we arrived at 7.30 p.m. at the main road. We must thank our two drivers Pascal and Rémy.

photo: A. Prelli

Pascal Holveck & Rémy Prelli photograph *Isoetes* megaspores

After dinner, we said goodbye to Patrick and Paul who had to make an early start the next morning.

Conclusion **Pat Acock**

These short breaks to the continent are relatively cheap and the journeys are in the main trouble-free and quick. Paul and I are amazed that more people do not attend.

We sincerely thank Sébastien Sant, who suggested the meeting and planned most interesting and varied habitats to visit in the beautiful department of Var. We also thank him for encouraging friends old and new to join us – they added greatly to our understanding of Var and their companionship was a delight.

SOUTH-WEST IRELAND – 11-16 July (Leader: Jim Dennison)

This trip was a truly international gathering, with over 30 members from Ireland, the UK, USA and Germany meeting for a tour of the south-west of Ireland that included visits to notable gardens as well as botanising in the wild. 'Ireland is not called the Emerald Isle for nothing' – all that wonderful verdancy is the result of plenty of water and although it rained for most of the week, this did not detract from our enjoyment of the country, the ferning activities and meeting up with old friends.

Sunday 11th – Athlacca, Carrigeenamronety Mountain & Garrycloyne **Martin Rickard**

The bulk of the party gathered at BPS members Martin and Debbie Begley's garden south-east of Athlacca, County Limerick (11/591329). The Begley's half-acre garden was awarded the title of 'Best Garden in Ireland' in 2007 in a national gardens competition. It was not difficult to see why. Debbie is a wonderful plantswoman who is known the length and breadth of the country for her knowledge and planting prowess. The garden was packed to the gunwales with plants of every description, the centrepiece being a large Thai House that Martin built in 2008. This was surrounded by *Dicksonia antarctica* plants. An attractive example of designing with ferns was a dense circular planting of *Matteuccia struthiopteris* surrounding a classical style sculpture contained within a low clipped box hedge. Martin's fern collection exemplifies his growing and active interest in fern culture in Ireland. The Begleys were extremely hospitable, offering unlimited tea and coffee as well as a wide selection of home-baked scones and cakes. Website: www.terranovaplants.com.

After a very enjoyable hour or so we set off in convoy to the Ballyhoura Mountain Range on the Limerick/Cork border to visit our first site of the week for *Trichomanes speciosum.* We met up at 11/703169 with other members of the party who had travelled direct from Killarney. We set off along forestry tracks to climb Carrigeenamronety Mountain, which proved to be a very steep and breathless climb in parts. *Dryopteris affinis* subsp. *affinis*, *D. dilatata*, *Blechnum spicant*, *Asplenium scolopendrium* and *Pteridium aquilinum* were all seen in abundance. Despite fears that the Killarney fern has disappeared from most of its early published sites, it was good to see this colony still flourishing, although the large fronds looked very slightly stressed compared to its appearance during a visit to this site the previous year by Jim Dennison, Martin Rickard and Martin Begley. This site is described under the name 'Carrigeena' by Edward Newman in 1854 on page 286 of *A History of British Ferns.* Side by side with *Trichomanes speciosum* were *Dryopteris aemula*, *Asplenium adiantum-nigrum* and *A. scolopendrium.*

After savouring the magnificent views from the summit of Carrigeenamronety, the party slowly made its way down the mountain and set off for the third location of the day, Garrycloyne, near to Blarney in County Cork (10/6079). Here is one of the few recently recorded sites of *Asplenium onopteris* in the British Isles, the other stations in Ireland being in Cork, Kerry, Waterford and Wexford. *Asplenium* × *ticinense*, the very rare hybrid between *A. onopteris* and *A. adiantum-nigrum*, confirmed by Alison Paul during an earlier visit, was also seen. In proximity were *A. adiantum-nigrum*, *A. scolopendrium*, *Polystichum setiferum* and *Dryopteris affinis*. Several tripinnate plants of *P. setiferum* were noticed, as was a small colony of a fine form of *P. setiferum* 'Ramosum'. After an enjoyable viewing here and in the old St Marys Churchyard, the group made its way back to Killarney, which was to be our base for the rest of the week.

Monday 12th – Kilravock Garden, Co. Cork & Torc Waterfall, Co. Kerry Jim Dennison

Kilravock Garden is the creation of Malcolm and Phemie Rose and is situated approximately three miles west of Durrus, facing directly onto Dunmanus Bay in County Cork (00/930417). It is a two-acre garden on a hillside, terraced to make a series of gardens. We were met by Malcolm and Phemie and all 30+ of us were immediately brought into the house for tea and scones. Phemie gave us the background to the garden and then off we went to root around. The weather relented for the morning and one could feel immediately the humid atmosphere that is a direct result of the Gulf Stream, which creates the ideal conditions for all the southern hemisphere plants that are grown here.

photo: J. Dennison

Kilravock Garden, Co. Cork
Naud Burnett with Martin Rickard in background

Phemie's passion is restios and she has perfected the raising of this difficult genus from seed to produce a wonderful collection of plants, most of which surprisingly came through the harsh winter of 2010. Notable plants included *Chondropetalum mucronatum*, *Rhodocoma capensis* and *R. gigantea*, to name but a few. Other southern hemisphere plants included cordylines, agaves, yuccas, bananas and a wonderful collection of palms.

The Rose's interest in ferns came relatively late in comparison with their other plant passions, but they have created a wonderful fernery in the damp part of the garden where a tumbling stream from the hillside above gives perfect conditions for the hundred or so species and varieties grown here. The tree ferns especially looked as if they were in fern heaven, with *Dicksonia antarctica*, *C. gleichenioides*, *D. squarrosa*, *D. sellowiana* *D. fibrosa*, and *Cyathea australis*, *C. cunninghamii*, *C. cooperi*, *C. incisoserrata*, *C. dealbata*, *C. medullaris* and *C. smithii* all flourishing.

After a very enjoyable couple of hours we said our goodbyes and headed back towards Killarney.

Torc Waterfall (00/965847) is a cascade of the Owengarriff river, tumbling 60 feet through Friars Glen on Mangerton Mountain, and is one of Killarney's most popular visitor attractions. It is especially famous in the folklore of ferns as it was here in 1804 that *Trichomanes speciosum* was supposedly first found in Ireland by a Dr Mackay. It quickly became known as the 'Killarney fern' and was in abundance at this site when described by Edward Newman in 1844 (*A History of British Ferns and their Allies*): "*I have stood amid the roar of waters gazing on hundreds of the dark green fronds of this fern, as they waved to and fro in the agitated air, and sparkled with myriads of sun-lit drops.*" However, he also records that this scene was to be seen no more as the fern was ruthlessly collected. Over the past one hundred and seventy years, however, the fern has been recorded again from this site, the recent count over the past six years being 14 or 15 stations by Steve Munyard. With Steve's assistance we quickly located some *Trichomanes* after a hazardous scramble for some of us over wet rocks to the opposite side of the river.

Other ferns seen were *Asplenium scolopendrium*, *A. trichomanes* subsp. *quadrivalens*, *Athyrium filix-femina*, *Blechnum spicant*, *Dryopteris affinis* subspp. *affinis* and *kerryensis*, a new form of *D. affinis* found by Ken Trewren and not yet officially named but provisionally called 'Torc 1', *D. borreri*, *D. borreri* 'foliosum type' also found by Ken but not yet officially named, *Hymenophyllum tunbrigense*, *Polystichum setiferum* and *Pteridium aquilinum*. In a small cleft in the rock-face next to steps leading to the top of the falls, Ken refound the *Trichomanes speciosum* gametophyte seen during the BPS visit in 2003. This turned out to be hilarious as quite a few of the group stood in turn to photograph the gametophyte and were soon joined by a group of curious Spanish tourists who also queued patiently to take a photograph of what to all intents and purposes was a piece of wet moss cloaking the inside of the small dark cleft!

We then broke up to go back to our accommodation in Killarney after spending a fascinating day seeing a wonderful example of 'nurture versus nature' in fern cultivation.

Tuesday 13th – Derreen Garden, Co. Kerry & Ardgroom, Co. Cork **Paul Ripley**

We again headed south, this time through Kenmare and on to the north coast of the Beara peninsula where we visited Derreen Garden (00/7758), established in 1870 by the fifth Marquis of Lansdowne. Sloping gently down from the house to inlets of the sea, the gardens were planted with specimen trees, rhododendrons and tree ferns. It was clear, especially to those who visited this garden during the last BPS trip to Ireland, that little had been done to the gardens recently apart from basic maintenance. In a most attractive glade, Kings Oozy, fine specimens of *Dicksonia antarctica* and individual plants of *Cyathea smithii* and *C. dealbata* created a lush rainforest feel and some beautiful vistas. However, much of the garden was somewhat neglected from a horticultural point of view and *Dicksonia* had become a serious weed. Other plants of note were *Blechnum chilense* and *Todea barbara*. For the record, *Dryopteris aemula* was frequently seen and *Polypodium interjectum* was a common epiphyte.

After lunch we travelled south-westwards along the coast through Ardgroom (00/648552) to a site near Eyeries where several colonies of *Trichomanes speciosum* were flourishing along the darkly wooded banks of a tumbling stream. We spent a little time here and particularly along the roadside verges, which were full of the greatest variety of ferns. We noted *Athyrium filix-femina*, *Dryopteris affinis*, *D. cambrensis*, *D. borreri*, *D. dilatata*, *D. aemula*, *Osmunda regalis*, *Blechnum spicant* and *Polypodium vulgare*. Ken Trewren found a plant of *Dryopteris filix-mas*, which is not common in this area. Growing on walls by the road were *Asplenium scolopendrium* and *A. adiantum-nigrum*. To our delight, Fay Mandt found a single plant of *A. obovatum* subsp. *lanceolatum* (*billotii*); a few other plants were found here but further along the coast road was a stone outbuilding whose wall was literally covered by the plant and we speculated that it was relatively protected here from slug attack.

photo: B.D. Smith

Martin Rickard, Jim Dennsion, Paul Ripley & Mary Vaughan photograph *Asplenium obovatum* subsp. *lanceolatum* on a wall

Wednesday 14th – Blackstones Bridge & Kells Bay, Co. Kerry **Pat Acock**

A significantly wetter day found us at Blackstones Bridge (00/707862) south of Lough Caragh, ostensibly to search the boulder-strewn woods near the car park for *Hymenophyllum wilsonii* and *Trichomanes speciosum*. The former was found there, but the finder discovered that the rest of the party had slipped away in the rain to find a little *H. wilsonii* amongst the *H. tunbrigense* further up the hill. In Victorian times people would come to walk under the dripping cliffs to wonder at the three filmy ferns, including the significantly more lacy *Trichomanes speciosum* var. *andrewsii*.

Wet through, the party went on to Billy Alexander's magical Kells Bay Gardens (00/557877). Fortified by hot soup and other victuals provided by Billy's wife and other helpers, we donned our sodden rain gear to assemble outside where the day was dryer. Billy explained that although there is no recorded history, tradition has it that a merchant family, the Blennerhassetts of Tralee, brought back significant numbers of Southern Hemisphere plants and built up the gardens around a one-storey hunting lodge. The house changed hands many times, with various families adding to and maintaining the gardens. Billy bought the 400-acre garden in 2006 and resolved to make it more accessible and sustainable. Billy and partners have worked tirelessly to recover the gardens from the ravages of time and nature and to restore as much of the decipherable plan as possible. The walled garden, a wild meadow and a board walk over the river and boggy areas have already been restored or created. Ferns too numerous to mention were seen and details can be found on the garden's website (www.kellsgardens.ie/). Needless to say, countless tree ferns of statuesque proportions and various ages and species abounded in this most wonderful and peaceful garden.

photo: B.D. Smith

Kells Bay, Co. Kerry

Steve Munyard, Sue Norman, Jennifer Ide, Paul Ripley, Kells Bay gardener, Michael Tuckerman, Ken Trewren, Sue Olsen, Diane & Richard Treganowan, Billy Alexander, Grace Acock, Wim & Naud Burnett, Jim Dennison, Pat Riehl, Martin Rickard, Fay Mandt, Pat Acock, Gill Smith, Quentin Alder, Claire Gotto, Joy Neal, Sarah Whittingham (*at back*), David Lincoln, Roger Norman, Christine Mullins, Anna Lincoln (*at back*), Mary Vaughan, Karen Munyard

Thursday 15th – Rossdohan Island wilderness garden, Brian Cross's Garden & Garinish Island, Co. Kerry

Paul Ripley

Rossdohan Island (00/717638), accessed via a bridge over the stream that separates it from the mainland, is situated south-west of Kenmare, just south of the pretty little village of Sneem. The significant planting was carried out in the 1970s and 1980s by the Walker family. It was then sold to a German family who lived in converted stables until ten to fifteen years ago. Since then it has fallen into neglect and the garden left to run wild. The group assembled on the cliff top by the original and now derelict house that was damaged by fire in the 1950s. The garden is mentioned in a number of Irish scientific publications due to the exotic plants growing there and alien insects found in them.

We began our explorations around the ruins, looking down into the crowns of *Dicksonia antarctica*, *Woodwardia radicans* and the native *Pteridium aquilinum*. On the walls were a number of plants of *Asplenium trichomanes* subsp. *quadrivalens*, *A. ruta-muraria*, *A. scolopendrium* and *Polypodium interjectum*. Alongside the steps grew stands of *Blechnum chilense*, *Dryopteris filix-mas* and *Athyrium filix-femina*, with *Selaginella kraussiana* growing in the grass in all open areas.

We then moved along a path through a large area of tree ferns, with some *Cyathea dealbata* in excess of ten metres high. *Cyathea cooperi* and *Dicksonia antarctica* were also frequent, with *Microsorum diversifolium* growing as an epiphyte. This has spread into many of the native trees, growing high into the branches. Native ferns seen included *Dryopteris dilatata*, *D. affinis* subspp. *affinis* and *kerryensis*, *D. borreri*, *D. aemula*, *Osmunda regalis* and *Blechnum spicant*. *Hymenophyllum demissum* was found growing on the bank of a small damp gully. Continuing down the path towards the sea, a few plants of *Asplenium marinum* were noted growing on the banks of a ditch. We returned to the cars on a higher path,

passing a log covered in *Hymenophyllum tunbrigense* and a large *Cyathea medullaris* more than ten metres tall.

After eating packed lunches at the quayside, we walked the short distance to Brian Cross's Garden (00/718643), passing many of the previously seen native ferns and adding *Asplenium adiantum-nigrum* to our list. In the ditches at the roadside we added *Polystichum setiferum* and *Equisetum arvense*. Brian is one of Ireland's top gardeners and his principal garden, 'Lakemount' in Glanmire County Cork, is one of the country's most visited gardens. The garden is relatively new, with winding pathways, water and large areas of planting. The hard winter had killed a number of the tree ferns but the following species were growing well: *Polystichum munitum*, *Dryopteris affinis*, *D. filix-mas*, *D. dilatata*, *Woodwardia radicans*, *Osmunda regalis*, *Athyrium filix-femina*, *Dicksonia antarctica*, *D. fibrosa*, *Blechnum spicant*, *B. chilense*, *B. magellanicum*, *Lophosoria quadripinnata*, *Cyathea dealbata* and *Araiostegia* sp.

We then returned to the quayside and travelled the short distance by boat to Garinish island (00/697639). Garinish is a private island owned by a Swiss family who visit once or twice a year. They do not normally encourage visitors to view their garden so we were extremely fortunate to secure permission from them for the BPS visit. On the journey over to the island, seals were basking on the rocks. On arrival we were treated to tea, coffee and cakes before setting off into the garden in the company of Seamus Galvin, the Head Gardener. Next to the converted boathouse was a small flowerbed with *Polystichum setiferum* varieties and a well, surrounded by *Matteuccia struthiopteris* and with *Asplenium ruta-muraria*, *A. scolopendrium* and *Polypodium interjectum* growing on the sides.

photo: J. Dennison

***Microsorum diversifolium* growing as an epiphyte at Rossdohan, Co. Kerry**

Following the path through the woods, all the usual woodland ferns were seen, with *Dryopteris aemula* growing commonly on the banks and also large stands of *Woodwardia unigemmata*. *Dicksonia antarctica* was frequent, with *Hymenophyllum tunbrigense* coating the rock outcrops. Walking next to a pool we viewed large specimens of *Osmunda regalis* and *Blechnum chilense*, with *Asplenium trichomanes* clinging to the walls of a small sump.

Walking to a higher level we saw more recent fern plantings of *Woodwardia radicans*, *Polypodium vulgare*, *Cyathea australis*, *C. medullaris*, *Blechnum discolor*, *B. novae-zelandiae*, *Dicksonia squarrosa* and *D. fibrosa*. Growing on the tree ferns were epiphytic *Hymenophyllum flabellatum* and *Rumohra adiantiformis*. *Dicksonia antarctica* was self-sowing all through the garden and sporelings were given to members to take home to grow.

After travelling back to the mainland we made our way back to Killarney to meet at the Gleneagles Hotel for a group evening meal.

Friday 16th – Brandon Mountain & Milltown, Co. Kerry **Bryan Smith**

On our final day of ferning it was perhaps fitting for the Americans in our party that our destination, Mount Brandon on the Dingle Peninsula, apparently took its name from Saint Brendan 'The Navigator'. Legend suggests that he climbed to the summit around 530 AD to see the Americas, before setting sail there. Once again, the weather did not look very

promising, with rain and clouds looming. Most people had checked out of their accommodation to travel back to Limerick, so the reduced car-sharing meant a lot of cars had to squeeze along the lane at the base of the mountain (01/492085). Along the roadside we quickly found *Asplenium adiantum-nigrum*, *A. trichomanes* subsp. *quadrivalens*, *A. scolopendrium*, *Athyrium filix-femina*, *Blechnum spicant*, *Dryopteris affinis* agg., *D. aemula*, *D. dilatata*, *Osmunda regalis*, *Polypodium interjectum* and *Pteridium aquilinum.* Heading up the lane towards the mountain, we saw a wall covered with nice colonies of *A. trichomanes* subsp. *quadrivalens* and later added *D. affinis* subspp. *affinis* and *kerryensis*, *D. borreri* and *D. filix-mas* to our list of ferns. Further on, we passed a lake containing *Isoetes lacustris* and up the mountain track we found small colonies of *Hymenophyllum tunbrigense* and *H. wilsonii* and, surprisingly, a couple of plants of *Polystichum aculeatum.* It was also good to see *A. trichomanes* subsp. *quadrivalens* and *A. ruta-muraria* growing in their more natural habit on rocky boulders. But *Trichomanes speciosum* was our real goal and this was found by a small stream cascading off the mountain. Compared with colonies seen earlier in the week, this was a pretty meagre affair, but still good to see none-the-less. On our way back down the track, eagle-eyed Ken Trewren found a single plant of *Huperzia selago.*

We took different routes to our next destination, Milltown, and en route the Munyard/Smith group were fortunate to spot a roadside house wall near Gowlane with *Asplenium ceterach*, *A. trichomanes* subsp. *quadrivalens*, *A. scolopendrium* and *Polypodium* sp. The house owner was so intrigued to learn about his ferns we believe the wall will now be left unrendered!

Our final visit was to Dhu Varren Garden, the two-and-a-half-acre garden of Mark and Laura Collins, south-east of Milltown (00/840980). This proved to be a fantastic garden, filled not only with ferns but with cacti, palms and other exotic plants. We parked in their front garden by a small pond out of which grew a triple-trunked *Dicksonia antarctica* approximately four metres high, and made our way to the rear garden past an area with numerous, large *D. antarctica*. Over eight years, Mark and Laura have developed their garden, which was previously farm buildings and boggy areas, and have built two huge greenhouses (I use the term loosely because they were more akin to botanic garden houses). Both greenhouses displayed the plants in the ground in a naturalistic setting – one with cacti, the other with a variety of plants including ferns; I jotted down a few of them – *Blechnum tabulare*, *B. magellanicum*, *B. fluviatile*, *B. hastatum*, *Polystichum lepidocaulon* and *Asplenium nidus*. Outside, the garden included boggy areas, a board walk, a Chinese pagoda, a large carp pond with arched bridge, and a high viewing/dining area adjacent to the pond. It is always difficult to list all of the ferns in a garden, but the ones I did note (not including ones already mentioned) were *Cyathea australis*, *C. dregei*, *B. nudum*, *Todea barbara*, *Adiantum venustum*, *Phlebodium aureum*, large plants of *Osmunda regalis*, and an old watering trough (remaining from a demolished barn) contained *Woodsia polystichoides.* Such an achievement in a few years by Mark and Laura was incredible, and this visit was a fitting end to our week. We bade farewell to friends old and new before dispersing.

photo: B.D. Smith

Triple-trunked *Dicksonia antarctica* in Dhu Varren Garden, Milltown, Co. Kerry

ARGYLL GARDENS, SCOTLAND – 24-26 July

Saturday 24th – Ascog Hall Fernery & Puck's Glen

Graham Ackers

photo: F. McGavigan

Martin Rickard & Sue Olsen at Ascog Fernery

Our first visit was to the Ascog Hall sFernery on the Isle of Bute (26/107630), known to many BPS members from previous visits and articles (see James Merryweather's article in the 2003 *Pteridologist*) – but new to me, and something of a revelation. The internal walls of the L-shaped structure are below ground level and built of local sandstone with nooks and crannies to provide numerous habitats for fern planting. The splendid Victorian glass and iron roof was skilfully recreated with the rest of the fernery by Wallace and Katherine Fyfe, completed in 1996 and awarded the First Prize of 2001 by The Historic Gardens Foundation. There are many tree ferns and numerous other fern species – the New Zealand *Hymenophyllum demissum* particularly caught my eye, but pride of place had of course to go to the enormous rhizome /trunk of the very ancient *Todea barbara*. Sadly the Fyfes both died quite recently, but the large gothic style house, beautiful garden, and fernery were taken over by their daughter Susannah Alcorn and her husband Graham. This vibrant couple were most welcoming and kind to us, and played the perfect hosts by providing a wonderful spread of coffee, tea and cakes.

Returning to the mainland by ferry, we travelled north of Dunoon to Puck's Glen (26/148844), a narrow gorge shaped by the tumbling waters of a tributary of the River Chaig. The steeply climbing path traverses the river several times in this atmospheric place, humid and lush, an ideal habitat for ferns – "one of the best places in Scotland to see native ferns" we had been promised. Indeed we recorded a total of 22 taxa. As a 'southern-centric' fernер, what most caught my eye were the discrete groups of *Gymnocarpium dryopteris*, the large stands of *Phegopteris connectilis* and the common but beautiful plants of *Dryopteris aemula*. With the help of Ken Trewren, we were able to record all three species in the 'affinis' group, as well as *Dryopteris affinis* subsp. *paleaceolobata* and *D.* × *complexa*. But pride of place went to the filmy ferns, with vast curtains several metres in extent of *Hymenophyllum tunbrigense* occurring on the rock-faces higher up the glen, a truly remarkable sight. But not to be outdone, the slightly less common *H. wilsonii* included some unusually large plants of 15 centimetres or more in length.

This most successful day was brought to a close with a communal meal in a hotel just north of Dunoon, the dining room affording fine views over the Firth of Clyde.

Sunday 25th – Benmore Botanic Garden & Taynish Nature Reserve

Janet Jephcott

Benmore Botanic Garden (26/141857) is a 120-acre garden gifted to the nation in 1925 by Harry George Younger and now a satellite garden of RBGE. The garden has an almost temperate rainforest climate with between 2,032mm and 3,048mm of rain per year, cool summers and relatively mild winters. Non-fern plants to note were the Redwood Avenue planted in 1840, *Magnolia wilsoni*, *Desfontainia spinosa* and *Fagus sylvatica* 'Asplenifolia'! Before ascending to the fernery there was a huge swathe of *Matteuccia struthiopteris* and on the steep approach, beds had been recently planted with a selection of ferns such as *Woodsia ilvensis*, *Blechnum tabulare* and *Arachniodes standishii*, the 'upside-down' fern.

The Benmore Fernery was constructed in the early 1870s on a steep hillside. It fell into decline from the early twentieth century until restoration work began in 2008. It is now planted up with a range of ferns from many parts of the world, most grown from spores at RBGE, with over 75% of wild origin. They include *Thyrsopteris elegans*, *Todea barbara*, *Blechnum cycadifolium*, *Sadleria cyatheoides* and *Cyathea capensis*, to name but a few.

photo: R.G. Ackers

Benmore Fernery

Frank McGavigan, Andrew Tolman, Paul Ripley, Paul Sharp, Pat Riehl

Although there was little time to explore the rest of this vast garden, as we passed through we saw perfect hillside conditions for abundant *Dryopteris affinis* and *D. dilatata*.

photo: R.G. Ackers

Polypodium vulgare **in Taynish Nature Reserve, Argyll**

Neil Bancroft, Steve Haines, Craig Williams, Janet Jephcott

Taynish National Nature Reserve (16/737852) is on a peninsula of the Argyll coast near the village of Tayvallich. It is one of Britain's largest remaining native oak woodlands and has a range of habitats that include shoreline, grassland, scrub, bog, heath and woodland. There were masses of mosses and lichens as well as a good selection of ferns including *Cystopteris fragilis* amongst the ruin of an old mill. Filmy ferns can also be found at this site but we were not lucky enough to spot any.

In total we saw the following: *Asplenium adiantum-nigrum*, *A. scolopendrium*, *Athyrium filix-femina*, *Blechnum spicant*, *Cystopteris fragilis*, *Dryopteris aemula*, *D. affinis*, *D. borreri*, *D. cambrensis*, *D. carthusiana*, *D. dilatata*, *D. filix-mas*, *Equisetum fluviatile*, *Polypodium vulgare*, *Pteridium aquilinum* and *Oreopteris limbosperma*.

Monday 26th – Arduaine Gardens **Andrew Tolman**

The last visit on the programme for the weekend was a visit to the National Trust for Scotland Arduaine Gardens (16/795104), about halfway between Lochgilphead and Oban. I had long wanted to visit Arduaine, having met the Head Gardener, Maurice Wilkins (BPS member) at Highgrove some years before whilst he was on an NTS Head Gardeners Conference based at Cirencester, Gloucestershire. I am very glad to say that Arduaine

exceeded all my expectations, being a magical garden set in a truly wonderful location; even the damp misty weather seemed to add to the occasion.

Once we were all assembled, Maurice gave us a potted history of the gardens, started in 1898, and its owners – the Campbells, before it was gifted to the NTS in 1992. He also updated us as to the current situation whereby the gardens have had a reprieve from imminent closure so that hopefully sufficient funds can be raised to ensure its survival for future generations. Maurice proceeded to give us a full tour of the 20-acre garden set in a small Glen sloping towards the sea. One of the highlights for me was the tree fernery that he has created in the Hillside area, with *Dicksonia antarctica*, *D. fibrosa* and *D. squarrosa*, which had been under-planted with *Thyrsopteris elegans* that had survived outside for three seasons. Last year Maurice recorded -6°C at the bottom of the garden and -3°C in the higher reaches of this garden, which is not used to such temperatures! It clearly has a fantastic micro-climate as I spied the biggest clumps of *Asplenium scolopendrium* and *Blechnum spicant* that I had ever seen!

Down the slope to the Arboretum Walk and The Glen areas of the garden we found *Lophosoria quadripinnata*, *Blechnum magellanicum*, *Phegopteris decursive-pinnata* and, if I wasn't already confused enough by the *Dryopteris* genus, we found *Dryopteris pseudo-filix-mas* to add to my burden! Above us the very impressive climber *Berberidopsis corallina* hung from some very high trees as if natural ropes in a jungle! In a border near the Heron Pond I found a new cultivar not known to me but one I shall be seeking to grow in the Stumpery at work, *Athyrium filix-femina* subsp. *angustum* f. *rubellum* with its stunning glassy red stipes! Close-by I found a favourite of mine *Polystichum setiferum* 'Ray Smith', which I had first spotted at Tatton Park last year. As we were nearing the end of the tour we came across an enormous specimen of *Dryopteris borreri* some three feet across and two-and-a-half feet high, which several in the group reckoned could be 1,000 years old!

It was a fascinating insight into a wonderful fern-filled garden provided by a passionate Head Gardener and fellow BPS member; what better way to round off the weekend! Many thanks Maurice for giving up so much of your time and making our visit unique. It will not be my last I can assure you of that!

As this was my first BPS weekend can I please just say a big thank you to Frank McGavigan for making it all happen and for the support shown to both Janet Jephcott and myself. Thank you also for kindly putting us both up for the first night and even for the tour of Weymis station when we missed the ferry! THANK YOU.

GARDENS OF SOUTH YORKSHIRE – 4-5 September (Leader: Paul Ruston)

Saturday 4th **Brian Dockerill**

On a sunny but breezy September day, 16 BPS members met in the car park of Brodsworth Hall near Doncaster (44/505071). This fifteen-acre garden of Victorian origin has been well renovated to reflect the fashions of that era and was to prove a fine illustration of this garden style. Topiary, so often leaden and overgrown, was here youthful and joyous and the bedding scheme was simply stunning. We were promised an exciting range of ferns and in this it certainly did not disappoint. The fern dell had been replanted to include the extensive collection of the late Wing Commander Eric Baker and was helpfully well labelled thanks to the Yorkshire Fern Group. As well as a good selection of more exotic ferns it included many forms of British native *Dryopteris* and *Polystichum*, but it was the *Polypodium* varieties that looked particularly good at this time of year. This wide-ranging collection was very well maintained and a visit is certainly to be recommended. In the nearby quarry garden were several trunked *Dicksonia antarctica*. The last hard winter seemed to have killed the *Cyathea australis* in this spot, but we were pleased to see that the *Microsorum pustulatum* (reported in the *Bulletin* Vol. 7, No, 2, page 139) growing on the tree fern trunk was still in leaf.

photo: B.D. Smith

Brodsworth Hall, South Yorkshire

Paul Ruston, Lindsey Holleworth, Bruce Brown, Yvonne Golding, Jonathan Crowe, Paul Ripley, Gill Smith, Roger Norman, Brian Dockerill, Christine Mullins, Sue Norman, Sue Dockerill, Ann Hoare, Roland Ennos, Graham Hoare, Bryan Smith

After lunch in the café, we moved on to the nearby Cusworth Hall (44/546039) where a small courtyard next to the house – Lady Isabella's garden – contained two rows of *Dicksonia antarctica*. The spot was cold and fully exposed to the east winds but the tree ferns were thriving despite having no protection in winter.

Our last port of call for the day was another restored Victorian garden at Wentworth Woodhouse near Wentworth (43/391978). Here our main focus was a recently replanted quarry garden. We first viewed it from above, where the numerous tree ferns were seen to best advantage and its overall aspect, sheltered by surrounding trees but open to the sky above, could be appreciated. We then descended to look at it in more detail. As at Brodsworth, a very wide range of ferns was to be seen – too many to list. Given the very dry conditions, a specimen of *Dryopteris cristata* caused considerable surprise – as did *Arachniodes simplicior*, hardly a common fern in public collections. Great interest was aroused by an area with multiple plantings of polypodies, each having fronds of three types and conforming to the general description of 'Elegantissimum' (syn. 'Cornubiense').

After a reinvigorating cup of tea in the café and a few purchases of plants from the garden centre, we ended a thoroughly enjoyable day with much to talk about over an evening meal in The Wortley Arms.

Sunday 5th

Bruce Brown

We started the second day, another fine and sunny one, exploring some old oak woodlands south of Stocksbridge. Glen Howe (43/296943) is one of Sheffield's oldest parks with well maintained paths criss-crossing the slopes of the glen. It did not take long to find *Dryopteris dilatata*, *D. filix-mas*, *D. affinis*, *D. borreri* and *Athyrium filix-femina*, and we soon added *Polypodium vulgare* colonising a wall-top, and *Polystichum setiferum*. A large well established *Osmunda regalis* may have been put in during the late Victorian period and behind it was a large *Dryopteris* which, on checking its spores later, proved to be *D.* × *complexa*. Further upstream by the footbridge were *Asplenium scolopendrium* and *Blechnum spicant*, by which time we had to move on to our next location, Bitholmes Wood, a mile to the north (43/296957).

This woodland was much larger and plant species such as melick grass (*Melica uniflora*) gave a good indication of its ancient woodland status. In addition to most of the above-mentioned we could add *Pteridium aquilinum* and *Equisetum arvense* to our list. *Dryopteris borreri* was the prevalent member of the *D. affinis* complex in the wood and one large interesting plant that caught our eye was also confirmed by its infertile spores to be a hybrid, possibly a candidate for *D.* × *critica*. We reached a bouldery part of the woodland that looked an ideal habitat for the gametophyte form of Trichomanes speciosum. A likely looking colony under a large rock was closely examined but could not subsequently be confirmed, so this will have to be followed up at a local group meeting. Lunch was beckoning, so Paul decided to put off a visit to Wortley Hall and, with some juicy blackberries to temporarily sustain us, we drove the few miles over to Wentworth Castle (44/321034) for a welcome lunch in their café.

photo: B.D. Smith

Bitholmes Wood, Sheffield

Bruce Brown, Sue Norman, Paul Brown, Roger Norman,
Sue & Brian Dockerill, Roland Ennos, Gill Smith,
Katie Ripley, Jonathan Crowe, Tim Mabon

Wentworth Castle is a Grade I English Heritage site noted for its park and gardens and mock castle, all of which have undergone extensive renovation since 2004. We admired the classic architecture of the stately home, enjoyed the flowers as we passed through the formal Union Jack and Victorian Gardens, were intrigued by the elaborate folly of Stainborough Castle – built purposely for the children to play on, then entered the woodlands to find the Stumpery and Fernery. First planted in an old quarry in the mid-eighteenth century by William Wentworth, the second Earl, and enhanced as the fern craze swept through fashionable Victorian gardens in the 1860s, this area has now been recreated with old yew stumps, twisted rhododendron boughs and rocks collected from the estate and planted up with 50 different fern species and varieties. A small group of *Dicksonia antarctica* and *Matteuccia struthiopteris* colonies were benefiting from a water sprinkler, and below in the stumpery were many popular favourites to admire. One or two we mused over were thought to be *Dryopteris marginalis* and *D. goldiana*. All in all it was an excellent display and a credit to the Wentworth gardeners.

This was an appropriate spot to sincerely thank Paul Ruston for single-handedly organising this meeting around some South Yorkshire gardens, which we all thoroughly enjoyed.

Postscript **Paul Ruston**

Shortly following our meeting I returned to Wentworth Castle with the gift of a couple of ferns new to their collection. The other purpose of my visit was to collect spores for the spore exchange from that very striking *Dryopteris marginalis*. I had the company of the Estate Manager, Michael Klemperer, and Holly, a member of his garden team who is responsible for the fern collection. Both my hosts showed much interest in the BPS visit to Wentworth and expressed their disappointment at missing the opportunity of joining us; it seems they were not informed of our visit by those officials with whom I had liaised. Michael is considering seeking BPS membership for Wentworth. The good news is that funding has been secured for the reconstruction of the old conservatory and work should begin in mid-2011. Upon completion it will be filled with ferns and palms – interesting and exciting times are ahead.

I would like to say how much I enjoyed sharing in the overwhelming enthusiasm that was shown by all participants over the weekend – thank you.

NORTHERN LAKE DISTRICT – 23-26 September

On Thursday evening a good crowd of members and friends assembled in Keswick, our base for the weekend, for a briefing in the Parish Rooms by our leaders, Peter Campion and Mike Porter. After a brief opportunity to socialise over welcome refreshments, the weekend's programme was outlined by Peter, including mention of logistical issues and potential risks due to the weather and nature of the terrain. Members were then invited to introduce themselves before Mike's excellent illustrated overview of the Lake District's ferns, both those that we would see and a few that we would not, which whetted our appetite for what was in store over the next three days.

Friday 24th – Newlands Valley **Bryan Smith**

On a cold, damp Cumbrian morning, 22 BPS members gathered in Little Town car park (35/231194), south-west of Keswick, and togged up ready for a day's exploring up Newlands Valley, following the course of Newlands Beck beneath High Spy and Dale Head. The sun did shine for much of our walk and despite the biting wind, the day was a most enjoyable fern hunt in one of the Lakes' loveliest valleys. We hadn't even got a few yards up the road before we had recorded *Pteridium aquilinum*, *Athyrium filix-femina* (including the red-stemmed variety), *Dryopteris dilatata*, *D. filix-mas*, *D. cambrensis*, *Polypodium vulgare* and *Cryptogramma crispa*. Even as far back as Roman times, the valley had been mined for its ores, so it was something of a surprise to find a patch of *Asplenium viride* just off the track (35/229184). We concluded that there must have been remnants of old mortar, or at least calcareous

photo: B.D. Smith

Looking at *Asplenium trichomanes* in Newlands Valley

Standing: Peter Campion, Robert Crawford, Matt Stribley, Trevor Taylor, Megs Rogers, Mo Richards, Brian & Sue Dockerill

Kneeling/sitting: Bruce Brown, Mary Gibby, Alison Paul, Mike Porter

seepage, supporting its growth in amongst the rocks. Crossing back to the east side of the Beck, and further along towards the valley head, we paused at a large boulder (35/228171) that had *A. adiantum-nigrum* and *Cryptogramma crispa* growing naturally in its crevices. The boulder was our cue to head off the track up the slopes of the valley to explore some of the rock-faces and scree slopes. We were rewarded with *Blechnum spicant*, *Gymnocarpium dryopteris*, *Oreopteris limbosperma* and *Phegopteris connectilis*, and close by, our first clubmosses, *Selaginella selaginoides* (35/228166) and *Huperzia selago*. A little way down the slope (35/229166), a small fern attracted our attention and after a lot of deliberation it was thought to be *Asplenium trichomanes* subsp. *trichomanes*; Mary Gibby took a small sample for confirmation purposes.

We paused for lunch on the scree slope, and then headed up towards a lovely waterfall at the head of the beck. On the way, we encountered more clubmosses – *Diphasiastrum alpinum* and *Lycopodium clavatum*, a good stand of *Dryopteris oreades*, and *D. affinis* subsp. *affinis*. Leaving the waterfall, we added *Cystopteris fragilis* along the return track, took a welcome respite for tea and cakes at a nearby farm, and studied *Polypodium vulgare* on the walls around Newlands Church. Nominally, it was about five miles from car park to waterfall and back, but I reckon we covered over seven miles allowing for exploration. We had recorded 21 fern taxa, but my abiding memory of the day was the amount of *Cryptogramma crispa*. It seemed to grow everywhere – on grassy banks, on dry-stone walls, on scree, in rock crevices, on the sides of roads and tracks and on open ground – almost anywhere we'd explored. Truly, it is one of the Lake District's classic ferns.

photo A.M. Paul

***Huperzia selago* in Newlands Valley**

Saturday 25th – Bowfell, Langdale **Bruce Brown**

Day two was very much a fell-walking expedition. Starting from the road end at the Old Dungeon Ghyll in Langdale (35/286061), our objective was to see *Lycopodium annotinum* – to be found far up the valley of Mickleden, high up on the slopes of Bowfell underneath the crags of Bowfell Buttress. One could wax lyrical about the crystal clear sunny day and superb Lakeland mountain scenery we enjoyed, but here we must concentrate on the ferns recorded.

The walk along Mickleden was well clothed with *Pteridium aquilinum*, and wetter spots produced a little *Oreopteris limbosperma*, *Athyrium filix-femina* and *Blechnum spicant*, with the ubiquitous *Cryptogramma crispa* popping up almost anywhere throughout the day. A few *Dryopteris borreri* were not troublesome to identify, but by the stile near the hotel was one *Dryopteris* that we were less certain about; with its dark reddish brown scales it looked to be a good candidate for *D. affinis* subsp. *paleaceolobata*.

After passing a large sheepfold the serious climbing up Rossett Gill began, albeit on a well engineered path, but our pace slowed accordingly with plentiful stops to 'admire the views'. At a zigzag bend (35/249071) we struck off south onto unpathed terrain, even steeper now, but the rills and boulders produced more species to peruse – *Huperzia selago*, *Phegopteris connectilis*, *D. dilatata*, *Lycopodium clavatum* and *Diphasiastrum alpinum*. At last we reached our first patch of *L. annotinum* at 534 metres altitude. This clubmoss is well scattered in the Scottish Highlands but Bowfell is its only southern location. The colony

looked to be doing really well with its creeping shoots spreading through the heathy grassland and wrapping around stones and boulders. Fertile cones that puffed yellow spore clouds when touched were plentiful. We climbed higher to an even larger colony that was estimated to be at least 50 × 25 metres in extent (35/248069). Why it does so well here but is absent from the rest of Lakeland is strange.

We checked between the boulders for *Dryopteris expansa* (previously recorded here by Ken Trewren) and other ferns, finding *D. filix-mas*, *D. borreri*, a lot more *Phegopteris* and a selection of buckler ferns. Mary Gibby showed us different forms of *D. dilatata*, and one or two likely *D. expansa* were found. One of these definitely met with Mary's approval and the GPS reading suggested that this could be Ken's plant. We then retraced our route back to the cars.

photo: B.D. Smith

Lycopodium annotinum
on Bowfell, Cumbria

Although time was getting on, a few members stopped off briefly at Launchy Gill, Thirlmere (35/309158) on the way back to Keswick. We didn't need to stray far from the roadside to find lovely drifts of *Phegopteris* and *Gymnocarpium dryopteris*, and boulders clothed in *Hymenophyllum wilsonii*. There were also plants of *Dryopteris affinis*, *Polystichum aculeatum* on the bridge and *P. setiferum* by the stile, not to mention other species seen earlier in the day.

We later gathered for a convivial evening and excellent meal in the Rembrandt restaurant in Keswick. It had been a busy, active but enjoyable day, with 20 taxa seen.

Sunday 26th – Barf & Derwentwater **Ruth Dawes**

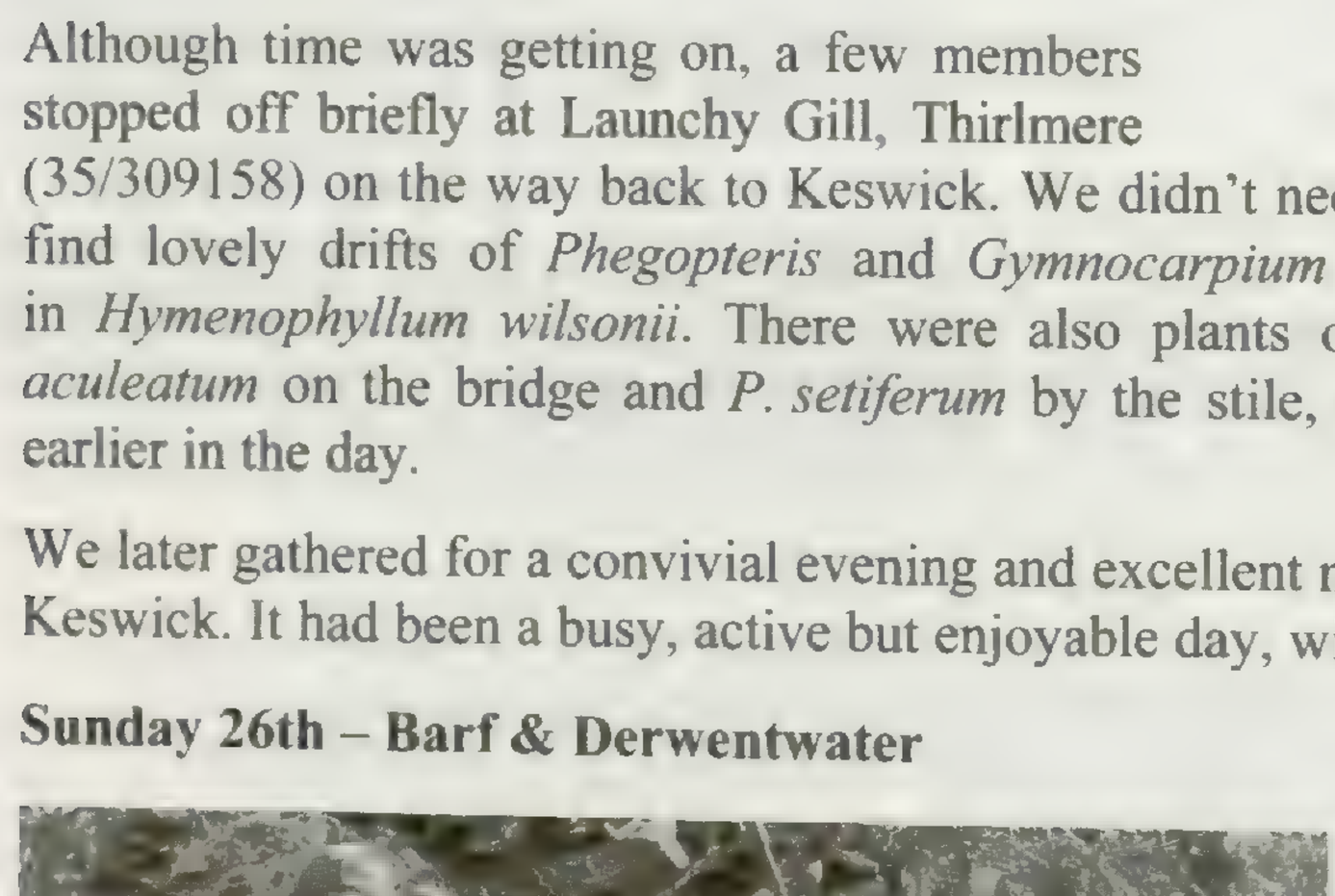


photo: P.J. Campion

Mike Porter points to *Asplenium septentrionale*
below the Bishop of Barf, Cumbria

Another dry morning was a welcome start for us when we met at Thornthwaite (35/220265) to scramble up the steep scree slope (two steps up, three steps back!) to the white-painted Bishop of Barf landmark. We were rewarded with sightings of *Asplenium septentrionale* (forked spleenwort), which was much admired and photographed. It was best not to think about the going down so we scouted around and *A. adiantum-nigrum* (black spleenwort) and *A. trichomanes* subsp. *trichomanes* (maidenhair spleenwort) were also found at the foot of the Bishop.

Having accomplished this mission safely, we set off to the National Trust Kettlewell car park (35/267195) on the shore of Derwentwater, where we squeezed our cars in and

admired the four-channelled leaves of *Isoetes lacustris* (common quillwort) washed up on the shore-line. The *Dryopteris* specialists were soon waylaid in the woods, practising their *D. affinis* agg. identification skills; all three species were found, together with *D. affinis* subsp. *paleaceolobata*. On the wall along the path were fine examples of *Polypodium vulgare* (common polypody) and *P. interjectum* (intermediate polypody), aiding comparison by growing conveniently close together. The pretty Falls of Lodore (35/265185) were photographed before we all took it in turns to balance on slippery rocks to admire a fine hanging carpet of *Hymenophyllum wilsonii* (Wilson's filmy fern) on a large boulder. Here too was more *Asplenium trichomanes* subsp. *trichomanes*. (Specimens taken from this and the Barf plant were later confirmed as this subspecies by Fred Rumsey.) We then enthusiastically knelt in the wet and mud, torches in hand, to pay homage to gametophytes of *Trichomanes speciosum* (Killarney fern) on the roof of their low hole in the rocks. Lush patches of *Gymnocarpium dryopteris* (oak fern) were noted on rotting wood, but we could not linger as we had to move our cars to car parks near the landing stage on Derwentwater for our finale.

Parking spots were procured by various means on this busy sunny Sunday. *Asplenium ruta-muraria* (wall-rue) was spotted as we strolled to the landing stage to catch our specially chartered vessel. A delightful short boat ride took us to Derwent Isle (35/261223), by kind permission of Douglas Barnes, the National Trust tenant. We were joined on the boat trip by Sarah Campion and friend Valerie Stewart, hauling mysteriously large cool bags that we discovered contained our tea. Ted, the black labrador, welcomed us to the island and allowed us to wander his domain at will providing we threw his ball. *Osmunda regalis* (royal fern) had disappeared from the shore, but *Onoclea sensibilis* (sensitive fern) looked very at home naturalised there. *Selaginella kraussiana* (Krauss's clubmoss) was doing well creeping along in the lawn. *Osmunda* was refound in the garden, together with fine shuttlecocks of *Matteuccia struthiopteris* (ostrich fern) and pretty fronds of *Polystichum setiferum* 'Plumosum Bevis' (soft shield fern cultivar), reputed to have been first discovered by a Devon hedge-layer named Bevis. Among the scaly male ferns found was one identified by our experts as *Dryopteris borreri* morphotype *rhombidentata*.

Exploring this tiny island somehow induced a huge appetite for tea and cakes, which was fortunate, as our finale was a splendid cream tea with award-winning chocolate brownies and Borrowdale tea bread prepared and served on the terrace by Sarah and Val. We did the tea good justice as we admired the open view of Cat Bells and around.

A well deserved vote of thanks was given to Peter Campion, Mike Porter and members of the North-West Group for all the hard work that went into this excellent and much enjoyed weekend and the wonderful tea.

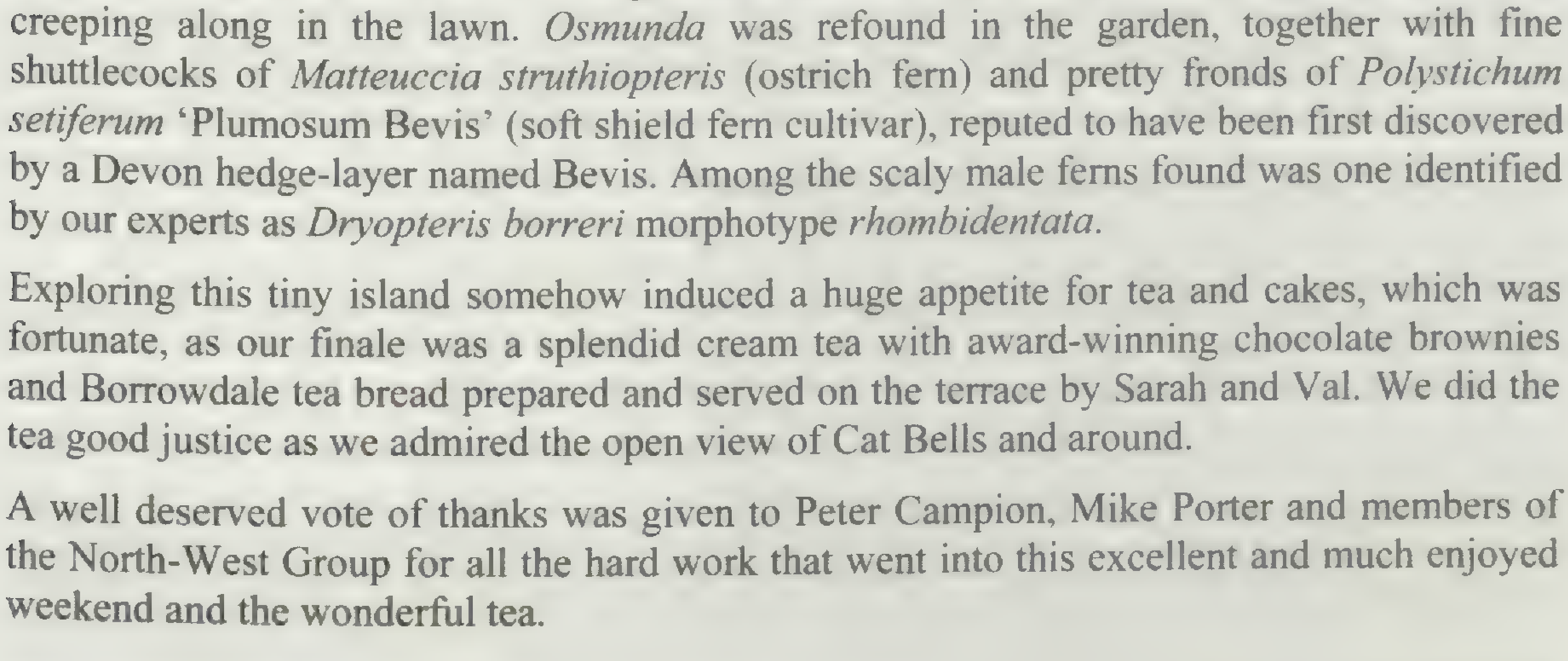


photo G. Smith

Returning from Derwent Isle

Ruth Dawes, Alison Paul, Megs Rogers, Sarah Campion, Christine Mullins, Mike Porter, Robert Sykes, Peter Campion, Sue Dockerill, Trevor Taylor, Bruce Brown, David Benham, Brian Dockerill, Betty King, Bryan Smith

LECTURE MEETINGS AND DAY VISITS

AGM & SPRING MEETING, NATURAL HISTORY MUSEUM, LONDON – 10 April

Pat Acock

Our President, Robert Sykes, welcomed the 38 attendees and introduced our first speaker. Jennifer Ide gave the first part of a report of the Society's April 2009 visit to Australia. With the aid of useful maps, Jennifer outlined our itinerary and explained why, as leader of the tour, she had chosen the eastern seaboard – fern numbers are higher in the east of Australia and rise as you venture northwards. She explained the significance of the vegetation, especially the adaptation of eucalypts to the high fire risk in summer. Poignant pictures of the 2008-9 fires reminded people of the frightful situation during that year but also showed how the eucalypts and some of the ferns cope with this environment and how rapidly they recover after the fire.

Martin Rickard carried on the Australian account in Alan Ogden's absence, as Alan had to attend hospital at very late notice. Martin showed some of the characters of the tour, along with many slides of his beloved tree ferns. He also showed that despite many people's vision of Australia being hot and sunny, we mainly experienced cool weather and had many wet days, especially when we were in the field south of Brisbane.

After a short coffee break, Sarah Whittingham gave a very well illustrated talk on the 'Further reaches of the fern craze', the subject of her latest book, *The Victorian Fern Craze*. Her research has been most extensive and a further book is to appear in early 2012. Even members of long standing enjoyed not only being reminded of the extent of the mania at this time but also were delighted by new evidence and ephemera that Sarah had unearthed in her researches. She also surmised that although in decline at the turn of the century, pteridomania never really died until the start of the First World War, citing evidence of book sales, enlarged catalogues of ferns to buy, much increased membership of the BPS and general interest both in the gardening and national press right up to the start of the war.

After lunch, during which much business and general socialising took place, our President gave his retiring talk, which is recounted elsewhere in this *Bulletin*. In his 'State of the Union' style address, he spoke of the strengths of the Society and concluded with a few observations as to where we could put more emphasis in the coming years. He then handed over to Mary Gibby for ten minutes to give her the opportunity to introduce herself. Mary gave a short history of how she had become involved with ferns during her life as a botanist, and acknowledged her good fortune in having most of the country's notable pteridologists as her supervisors and colleagues over the years.

The AGM followed, and business was concluded in a most efficient and practical way. Frank McGavigan was elected to fill the vacancy on the committee.

photo: M. Gibby

Alison Paul receives her Outstanding Contribution Award from Robert Sykes, AGM 2010

Following afternoon tea, two talks were given on the tour to California hosted by our sister organisation, the Hardy Fern Foundation. Martin Rickard enthused about the San Francisco area and the parks and gardens we visited, especially waxing lyrical about our time at Berkeley under the leadership of Alan Smith. Moving on to the Oregon border, he mentioned the redwood park we visited, and Humboldt State University's most unusual collection of ferns. Graham Ackers concluded by talking about the ecology and nature of the redwood forests, showing many superb slides of the vistas and the ferns in the understorey as well as describing the differences in the ecology and morphology of the two redwood species.

Our retiring President closed a very special meeting that had included a wide range of talks with something for everyone. He thanked our host for the day, Alison Paul, who had done all the background preparation, provided all the projection support and supplied all the refreshments.

AUTUMN INDOOR MEETING, TRUMPINGTON, CAMBRIDGE – FERNS OF SOUTH & CENTRAL AMERICA – 6 November Matt Busby

Bright sunshine greeted the 24 members who attended the Autumn Indoor Meeting organised by Sylvia Martinelli in Trumpington Village Hall near Cambridge. A very full day's programme had been arranged and the meeting began with a presentation by Sylvia on 'Chilean ferns'. Sylvia has visited Chile several times and it became evident that she has a wide experience of that country. Sylvia's photographs of the numerous species of ferns were remarkable and many had the stunning background of the Chilean Andes. I particularly enjoyed seeing the several blechnums she encountered, particularly those that produced colourful fronds, but what I found especially exciting was the illustration of *Polystichum andinum*, a fern that I have tried to raise from spores but always failed. This is a much sought after alpine gem.

'What has happened to *Doryopteris*?' was the subject of our next speaker, Jovita Yesilyurt from the Natural History Museum, who worked on the genus *Doryopteris* for her PhD project. *Doryopteris* is related to some members of *Pellaea* and *Cheilanthes*, and Jovita described the many problems and complexities of this group of ferns and explained that some species have been swapped between these genera. Jovita's efforts appear to be realigning some of the species to possibly one or two new genera. For example, the species related to *D. ludens*, which are found mainly in Asia from Indo-China to New Guinea, have been recognised as the new genus *Calciphilopteris* by Jovita and Harald Schneider. We were pleased to see photographs of quite a few *Doryopteris*, mostly taken during Jovita's fieldwork in Brazil, notably: *D. feei*, *D. acutiloba*, *D. varians*, *D. lorentzii*, *D. stierii* and *D. majestosa*. It will be very interesting to see the final results of Jovita's work when it is published. There is a webpage devoted to *D. majestosa*, one of the new species described by Jovita, on the Natural History Museum website.

photo: J. Yesilyurt

***Doryopteris varians* in Brazil**

I checked the Society's Spore Exchange lists and found that only half a dozen *Doryopteris* species have ever been offered to the membership. Happily, *D. pentagona* will be on the

2011 list for the first time. Sadly, growers in the UK generally seem only to have the opportunity to acquire the delightful *Doryopteris pedata* for cultivation.

Unfortunately, Mamen Peña-Chocarro was unable to attend to talk on Paraguayan ferns as her daughters were ill, so it was agreed that we enjoy an early lunch.

We resumed after lunch, to hear Martin Rickard's illustrated talk on 'Chilean ferns'. This was mainly based on his visit to the Juan Fernandez Islands, which are situated about 400 miles into the Pacific Ocean. Martin explained the difficulties of getting to the islands, a journey that involves small boats and aircraft. The islands consist of narrow and barren coastal plains that give rise to sudden precipitous mountain-sides covered with rainforest. Martin explained that of 212 native species on the islands, 55 are ferns of which some 47% are endemic to the archipelago. I was particularly taken with the photographs of *Dicksonia externa*, *Adiantum chilense*, *Polystichum tetragonum* and *Asplenium obtusatum*. What really fascinated me was the glimpse of apparently inaccessible areas that have never been surveyed botanically. One wonders what unknown treasures await those brave, or foolhardy enough, to venture there. Martin also gave a brief account of some of the ferns of central Chile, complementing Sylvia's earlier talk. I was particularly impressed by the very lovely *Adiantum sulphureum*.

The afternoon break gave members another chance to raid the magnificent plant stall and retire to the kitchen to enjoy excellent home-made cakes supplied by members. Then we settled down to listen to Alison Evans' account of the 2008 BPS visit to Costa Rica. I was especially pleased to see photographs of the various locations as well as of such attractive species as *Plagiogyria costaricensis*, *Bolbitis oligarchica* and *Adiantum pectinatum*. I was intrigued to learn that two genera are named after muses: namely the Muse of Dance, *Terpsichore* (Alison showed us *T. senilis*) and *Melpomene* (we were shown *M. moniliformis*), which we later discovered is the Muse of Tragedy. It was such a joy to see the wonderful *Jamesonia scammanae*. Let no-one say that our meetings are not fascinating and educational.

Announced on the programme as a 'Mystery lecture', our next speaker proved to be our hard working Secretary, Yvonne Golding. Yvonne gave us a brief talk on another of her passions, namely phasmids, or stick insects to those of us not familiar with this group of the insect world. Yvonne's knowledge and enthusiasm came across very well and she kindly brought along two tanks containing these interesting creatures for us to examine. I was especially interested to learn that these colourful South American species feed exclusively on ferns; in this particular case, phasmids and ferns do not mix. A delightfully different talk.

Sylvia Martinelli gave the final slide-show. She has been trying to persuade the BPS to hold a meeting in Ecuador for years and hoped to whet members' appetites with pictures of some of the high Andean *Jamesonia* species, little elaphoglossums in rock crevices, myriad *Thelypteris* tall enough to walk under in the rainforests, furry looking *Alsophila* buds and delicate *Melpomene* clinging to trees. She joined an American group led by Alan Smith but unfortunately was too far in the rear to get names for many of the ferns seen on hikes. However, there were plenty of fern genera familiar to Europeans: *Adiantum*, *Asplenium*, *Pteris*, *Blechnum*, *Polystichum*, and the ubiquitous *Cystopteris fragilis*. Most of the polypodiaceous genera, such as *Belvisia*, *Campyloneurum* and *Niphidium* were unfamiliar to Sylvia. Lycopodiums in the high Páramo plateaus had stunning red and gold colours. Ecuador is obviously well worth visiting for its ferns, scenery, food and ambience.

May I express my thanks on behalf of the members present to the speakers and the plant sale suppliers, to Tim Pyner for organising the plant sales table, to Gill Smith for attending to the refreshments, to Yvonne Golding for providing and taking charge of the booksales table and to Sylvia Martinelli for organising the day. I was especially pleased to hear that the sale of plants raised £254.11 and the sale of cakes raised £15.35 making a total of £269.46 towards the cost of the meeting.

REGIONAL MEETINGS

YORKSHIRE FERN GROUP

Ilkley, West Yorkshire – 13 March

Bruce Brown

Our winter meeting was blessed with pleasant sunshine for a change, although gloves were in evidence amongst the eight members present. We met on the western edge of Ilkley at the foot of Heber's Ghyll (44/100473), which is a popular local walk criss-crossing the beck over many footbridges as it rises through predominantly oak woodland to the moor edge above. *Asplenium scolopendrium* was common by the roadside with a lone *Dryopteris borreri*, and once in the woodland *D. dilatata* became the dominant pteridophyte.

But our main interest was in the many colonies of *Trichomanes speciosum* in its gametophyte form hiding under the gritstone boulders. They shared their habitat with luxuriant mats of mosses and liverworts, which some members were able to identify and so add extra interest to the day's activities. Lots of tiny sporelings of *D. dilatata* were seen and also here and there it was possible to study their minute green gametophyte tissues. At one spot Ken Trewren speculated as to whether a bed of *T. speciosum* gametophyte might also be producing a tiny sporophyte. It was only five millimetres long, so for confirmation we may have to monitor its growth for quite a while, and hope that it doesn't turn into something more prosaic.

It was good fun splashing around in the ghyll and exploring under the boulders and along the rocky beck-sides even though we didn't find anything new, just the expected acidic woodland ferns – *Blechnum spicant*, some large *Dryopteris affinis*, another *D. borreri*, a few fronds of *D. filix-mas* and dead remains of *Athyrium filix-femina*, *Oreopteris limbosperma* and *Pteridium aquilinum*.

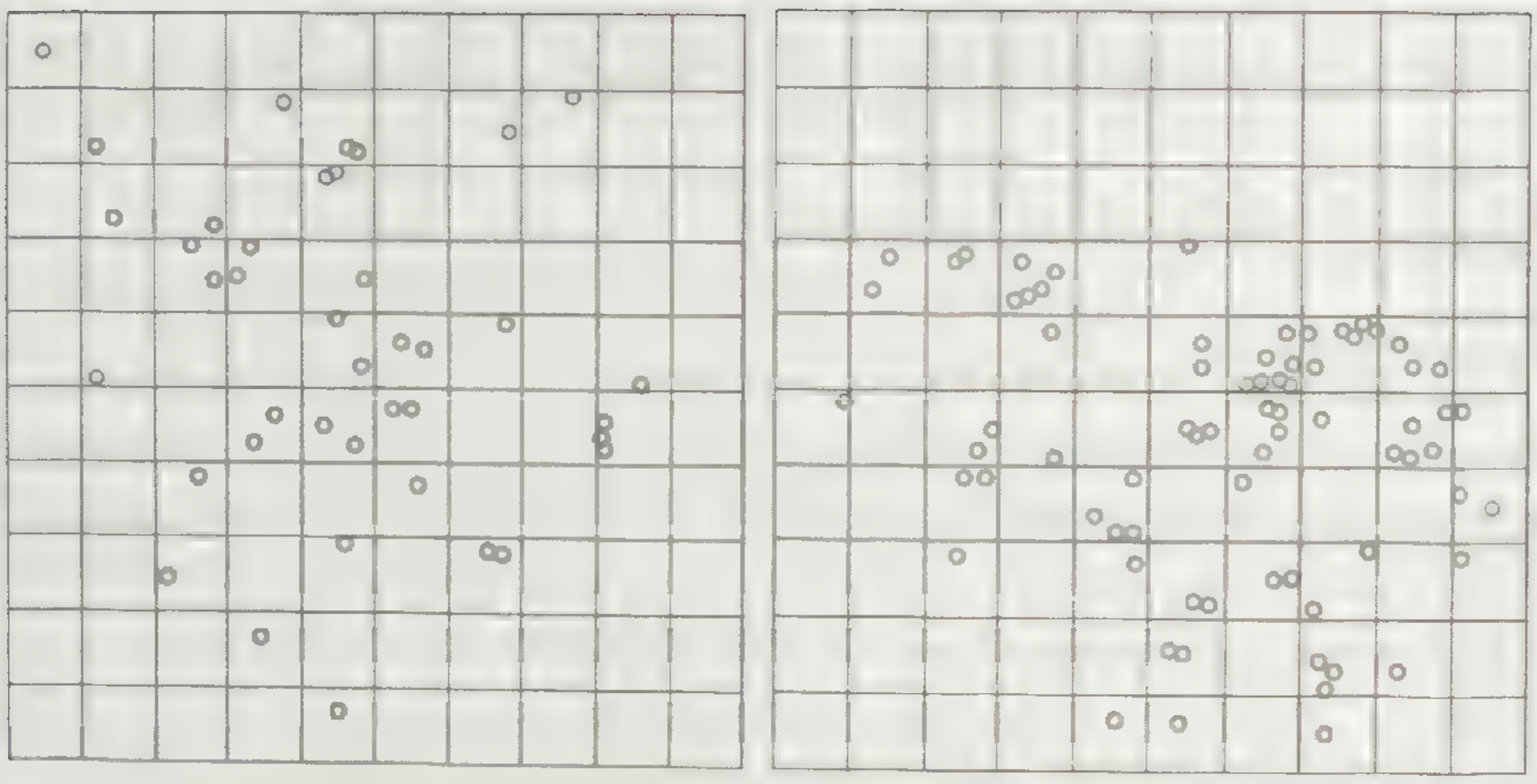
Moonwort Survey, Yorkshire Dales – 22 May

Barry Wright

A thankfully dry day greeted this year's moonwort (*Botrychium lunaria*) hunters (Bruce Brown and me). From our meeting point, the lunch stop pub car park at Grinton (west of Richmond, North Yorkshire), we set off to the start of the transects. This was the same stretch of road that we had surveyed previously, at approximately 44/040966. In 2009 the results of our repeated surveys showed that the variability in numbers recorded on different dates and by different observers was great. But we did one more survey this time, to get one more set of data before putting this phase of the surveys to bed.

The next phase was to continue with the fixed quadrat system that we had started the previous year and which was designed to find out how numbers vary within ten monitoring quadrats year-on-year. In 2009 we sampled each week for a four-week period to see if the number of spikes in week one increased over the ensuing month. They did not seem to do so. Any increase in number was more likely to be due to seeing spikes that were missed in earlier surveys. Thankfully we found all ten quadrats and surveyed them using the same technique of a one metre by one metre frame divided with elastic into 100 squares identified using a letter (left to right) and a number (base to top) as in mapping, e.g. A2, B4. The results were generally as expected, with similar numbers of spikes coming up in roughly the same areas as the previous year. One exception was quadrat 236, where there were almost twice as many spikes in 2010 (75) than there were in 2009 (39). They were mainly in the same areas, though a scatter of records in 2009 near the top was not repeated in 2010. The two sets of data are shown overleaf.

Data from future years will add to our understanding of the dynamics of this sometimes elusive little plant.



Distribution of *Botrychium lunaria* spikes in one-metre-square quadrat no. 236 in 2009 (left) and 2010 (right)

Parcevall Hall & Troller's Gill, Appletreewick, North Yorkshire – 19 June

Alison Evans & Bruce Brown

We met near Appletreewick, south-east of Grassington, in the lower car park of Parcevall Hall (44/068610) where we found *Asplenium trichomanes*, *A. ruta-muraria* and *Equisetum palustre*. The head gardener, Phill Nelson, told us the location of a clump of *Thelypteris palustris* that had been moved from a threatened location to a site by the woodland lake. After admiring the plantings of *Osmunda regalis* and *Matteuccia struthiopteris* in the bog garden near the entrance, we walked through the woods to the newly made waterfall below the lake. We noted *Asplenium scolopendrium*, *Athyrium filix-femina*, *Dryopteris dilatata*, *D. filix-mas*, *D. borreri* and *Equisetum arvense* on the way. There was another lovely stand of *Matteuccia* by the lake, and after some searching we found three or four fronds of *Thelypteris palustris*. *Pteridium aquilinum* was the only other native species we found in the woods.

We then walked up through the terraced gardens in front of the house to the walled garden by the chapel, admiring the flowering plants and the wonderful view on the way. It took us some time to identify all the cultivars growing around the chapel, and in the rock garden and woodland garden higher up the hill. The ferns in these areas are listed below:

Walled garden and around the chapel	Woodland / rock garden
Asplenium scolopendrium 'Crispum Bolton's Nobile'	*Adiantum aleuticum*
Asplenium trichomanes	*Asplenium scolopendrium* Crispum Group
Athyrium filix-femina – a crisped form	*Athyrium niponicum* 'Pictum'
Dryopteris dilatata 'Crispa Whiteside'	*Dryopteris cycadina*
Dryopteris dilatata 'Lepidota Cristata'	*Dryopteris filix-mas* 'Crispa Cristata'
Dryopteris filix-mas 'Linearis Polydactyla'	*Dryopteris filix-mas* 'Cristata'
Osmunda regalis	*Dryopteris goldiana*
Polypodium × *mantoniae* 'Cornubiense'	*Dryopteris wallichiana*
Polypodium vulgare 'Bifido-cristatum'	*Gymnocarpium dryopteris* ?'Plumosum'
Polystichum aculeatum	*Polypodium glycyrrhiza* 'Longicaudatum'
Polystichum munitum – a crisped form	*Polystichum setiferum* Divisilobum Group
	Polystichum setiferum Plumoso-divisilobum Group
	Polystichum setiferum – unidentified cultivar

We eventually dragged ourselves away from the garden to eat our lunch, and then set off into Tibet Wood, another part of the garden that is being developed. A new taxon there was *Equisetum sylvaticum* at 44/066608, and we also admired a large stand of chickweed wintergreen, *Trientalis europaea*, in full flower.

Leaving Tibet Wood, we made our way up to Troller's Gill, seeing *Dryopteris filix-mas*, *D. dilatata*, *D. borreri*, *Equisetum arvense*, *E. palustre* and *Pteridium aquilinum* on the way. When we reached the old breached dam of the mine-workings at 44/066614, we explored to the left and right of the path. Up a steep incline on the left we found *Oreopteris limbosperma*, *Dryopteris affinis* and *Athyrium filix-femina* growing amongst the bracken. On the wall of the dam to the right we found *Cystopteris fragilis*, *Asplenium trichomanes*, *Polypodium vulgare* and *Polystichum aculeatum*. *Asplenium ruta-muraria* was growing on rocks to the left of the path to the gorge, and in the gorge itself (44/068618) there were large stands of *Cystopteris fragilis* and also *Polypodium interjectum*. The steep rock sides had many nooks and crannies to explore but we did not find *Asplenium viride* until near the end of the right-hand rock wall, just before the slope becomes more gradual and grassy. We climbed up the grassy slope to a cave, bravely explored by Paul, and found more *A. viride* growing around the entrance. We didn't find the Barghest, a monstrous black dog with huge teeth that is reputed to live in Troller's Gill, and mercifully it didn't find us either. We then retraced our steps to Parcevall Hall.

photo: E. Evans

Troller's Gill, North Yorkshire

Martin Harrison, Mike Wilcox, Bruce Brown, Brian Byrne, Roger Golding, Jesse Tregale, Paul Ruston, Alison Evans, David Nelson, Sheila Wynne, Chris Evans

Teesdale, County Durham – 17 July

Barry Wright

A semi-nice day (the rain was only falling at 45° in the fresh breeze instead of the more normal, for Teesdale, fully horizontal) for a walk that was previously done as part of a national meeting in 2002. It was repeated because we have a number of members that did not attend the earlier meeting and who were particularly keen to see how the *Woodsia ilvensis* introductions had fared. And of course Teesdale is a very nice valley. We met at the Cow Green Reservoir car park, left some cars there and drove back to Langdon Beck to start the walk along the river back to Cow Green. The cars left there would then take us back to Langdon Beck.

First blood was a patch of *Equisetum arvense* next to the cars at Langdon Beck (35/847309) followed by *E. palustre* on the track to Widdybank Farm (35/846306). Then nothing of note until after the farm when we found real ferns such as *Dryopteris filix-mas*, *D. dilatata*, *Blechnum spicant*, *Pteridium aquilinum* and some *Selaginella selaginoides* (35/832286). An area of boulder scree at 35/830284 yielded some of the goodies we were expecting to see, including *Dryopteris oreades*, *Athyrium filix-femina*, *Polystichum aculeatum*, *Huperzia selago*, *Asplenium viride*, *A. trichomanes* subsp. *quadrivalens*, *Polypodium vulgare* and

Cryptogramma crispa. *Asplenium ruta-muraria* could not be found until we got to the first *Polystichum lonchitis* site at 35/825281. This cliff also had *Cystopteris fragilis* and *Phegopteris connectilis*. Between here and the next *P. lonchitis* site we found a wet area with *Equisetum fluviatile*. John Durkin had photos of *P. lonchitis* plants he saw back in the 1980s. Many were still there, but sadly one seemed to have recently expired. Someone saw a plant of *Asplenium scolopendrium*. The next plant of interest was *Gymnocarpium dryopteris* in some more boulder scree at 35/818281.

As predicted we found *Dryopteris expansa* nestling behind the large boulder that I had affectionately dubbed 'Ken's rock', as Ken Trewren first showed me this colony. This must be one of the easiest places to direct someone to if they want to see that species. The plants looked very healthy and larger than I recalled. John said that it may be because of reduced grazing on the reserve. As an added bonus, *D. carthusiana* was found not far away; the whole party agreed it was that species even though it was in an odd place and it had not been recorded there despite the intense activity of botanists over the years.

On the way to the *Woodsia* site, we passed *Dryopteris cambrensis* (35/817284) (probably – a frond was taken to Ken Trewren who thought this to be the most likely candidate) and a few plants of *Oreopteris limbosperma* at 35/816284. The *Woodsia ilvensis* colonies on the Durham side of the river seemed to be doing well, again probably because of the reduced grazing. John Durkin gave Bruce Brown directions of where to look on the 'Yorkshire' side (v.c. 65 NW Yorks. but now in Cumbria) for more *Woodsia*. These plants were subsequently found and were also in healthy colonies.

After a photo stop on Cauldron Snout we found a colony of *Equisetum variegatum* at 35/816295 and, amazingly, a few extant spikes of *Botrychium lunaria* on the roadside leading to Cow Green car park. Back at Langdon Beck most of the party headed off home (no stamina!), leaving Bruce Brown and me to pay homage to the nice patch of *Equisetum pratense* at 35/852307. A long but rewarding day.

photo: C. Haigh

Cauldron Snout, Teesdale

Barry Wright, Brian Byrne, John Durkin, Jesse Tregale, Bruce Brown, David Tennant, Mike Canaway, Alison Evans, Frances Haigh

South-west Scotland – 21-22 August

Bruce Brown (Introduction & Saturday) & Alison Evans (Sunday)

Little did those of us attending the 2008 BPS visit to south-west Scotland realise that as we were exploring Kirkbean Glen, Ken Trewren had spotted a *Dryopteris* species new to Britain. Ken did not say anything at the time, waiting until he could definitely confirm it as *Dryopteris pseudodisjuncta* after visiting known sites of it in Europe with two German botanists, Günther Zenner and Jens Freigang. See 2010 *Pteridologist* (vol. 5, no. 3) for Ken's account of this discovery and identification features of the plant.

Not surprisingly, there was great enthusiasm for revisiting the site, resulting in 14 of us meeting up at our base, the Clonyard House Hotel at Colvend (25/855553), south of Dalbeattie, Dumfries and Galloway. We were a mix of Yorkshire Group and BPS members from further afield, as well as Günther, Jens and Ken. Kirkbean Glen is particularly rich in different taxa within the *D. affinis* complex and having three *Dryopteris* experts was quite challenging for the rest of us in trying to keep up and not 'lose the plot', but I'm sure we all learned a lot. Afterwards we planned to visit other woodland sites (with permission), to see if *D. pseudodisjuncta* was more widespread.

On a fine sunny morning we arrived at Kirkbean (25/977588). The glen is a steep-sided wooded valley surrounded by flatter agricultural land just a mile inland from the Solway coast. Ken explained to us the features of the *D. affinis* taxa and other ferns seen (listed below) as we progressed up the south side of the glen for half a mile, over the footbridge and back on the north side with detours down to the rushing beck below.

***Dryopteris affinis* agg.**	**Other ferns**
D. affinis subsp. *affinis*	*Asplenium scolopendrium*
D. affinis morphotype *convexa*	*Asplenium trichomanes* subsp. *quadrivalens*
D. affinis subsp. *paleaceolobata*	*Athyrium filix-femina*
D. borreri	*Blechnum spicant*
D. borreri morphotype *foliosum*	*Dryopteris dilatata*
D. borreri morphotype *insolens*	*Dryopteris filix-mas*
D. borreri morphotype *rhombidentata*	*Polypodium* × *mantoniae*
D. cambrensis subsp. *cambrensis*	*Polypodium vulgare*
D. cambrensis subsp. *pseudocomplexa*	*Polystichum setiferum*
D. × *complexa* nothosubsp. *complexa*	*Pteridium aquilinum*
D. pseudodisjuncta	*Trichomanes speciosum* – gametophyte

The number of *D. pseudodisjuncta* plants found was increased to 16 with the help of the Germans, who were happy to see and confirm the identity of these British plants. The two *D. affinis* morph. *convexa* and one *D. cambrensis* subsp. *pseudocomplexa* seen were also rare sightings, according to Ken. A little later, Günther and Jens found an unusual *affinis*, which they thought to be similar to *D. affinis* subsp. *kerryensis*, seen recently by them in Ireland, but no definite confirmation was made.

We headed off to New Abbey for lunch, then returned to explore Drumburn Glen (25/980619) about two miles north of Kirkbean. This was an attractive area with two stretches of woodland, the first well populated with common ferns, but only *D.* × *complexa* and *D. borreri* morphotype *insolens* were of particular note. There was a possible D. × *critica* but this was not confirmed.

We climbed up through the wood and across a field to a farm track in order to reach the next patch of woodland. The roadside vegetation had been cut back earlier in the year, so there were newly-flushed fronds of *Athyrium filix-femina*, *Pteridium aquilinum*, *Dryopteris filix-mas*, *D. dilatata*, *D. borreri*, and a good stand of *D. cambrensis* at 25/976621. Near the second wood we found mature plants with flatter, broader fronds that Günther also identified as *D. cambrensis*. The second wood was quite wet underfoot and overgrown in places with brambles and nettles. *D. dilatata* and *P. aquilinum* were frequent, but amongst them were fine plants of *D. affinis*, *D. borreri* morphotype *foliosum*, and *D. borreri* morphotype *insolens*. We were puzzled by some plants with flattish, dark fronds, again confirmed as *D. cambrensis* by Günther and Jens. We also noted *D. filix-mas*, *Blechnum spicant* and *Athyrium filix-femina*. It was now quite late and the light was fading so we headed back to the cars, noting *Polypodium vulgare* on a garden wall and *Equisetum arvense* at the roadside.

On Sunday we explored woodlands further west along the Solway coast, again looking for more plants of *Dryopteris pseudodisjuncta*. Parking near the beach at Abbey Burn Foot, we walked along Netherlaw Burn from 25/742447 to 25/733448. There were magnificent stands of *Asplenium scolopendrium* and *Polystichum setiferum*, and we also noted the typical *D. borreri*, referred to as 'Newman's' by our German colleagues, in addition to *D. borreri* morphotypes *insolens* and *foliosum*, *D. affinis*, *D. cambrensis* and *D.* × *complexa*. We also saw *Asplenium trichomanes* growing on the garden walls of the old Netherlaw House, demolished when the area became a firing range during the war. We managed to drag everyone away from the seaside for a group picture back at the car park and then those of us who could stay on went to find lunch in Dundrennan. The pub is no longer open but a tea room in the church was offering tea and home-made cakes in return for a donation; apparently it was their last week as the church will be deconsecrated. The church also housed a large exhibition on wartime Dundrennan and the old Netherlaw estate.

photo: C. Evans

Near Netherlaw Burn, Dumfries & Galloway

Alison Evans, Mike Canaway, Roger Golding, Brian Byrne, Bruce Brown, Michael Wilcox, Matt Stribley, Sheila Wynn, Frances Haigh, Günther Zenner, Jesse Tregale, Ken Trewren, Jens Freigang

After noting the *A. trichomanes* and *A. ruta-muraria* growing on the church wall, we drove on to Orroland (25/773462), where we had permission to park and walk down to the shore. The track descended through a ferny paradise, where we noted the three types of *D. borreri* that we had seen in the morning, and also *D. affinis* but no *D. pseudodisjuncta*. We headed down the track to a walled garden, newly planted with palms and ferns and with some self-sown ferns too. The walls had extensive colonies of *A. trichomanes* and *Polypodium interjectum*. Red-stemmed *Athyrium filix-femina*, *Polystichum setiferum* and *Dicksonia antarctica* had been planted amongst the palms, and *Asplenium scolopendrium*, *Dryopteris filix-mas*, *D. dilatata* and *Pteridium aquilinum* seemed to have arrived naturally.

We turned right onto the beach, and walked eastwards at the foot of the cliffs in glorious sunshine. We were thrilled to find two colonies of *Asplenium marinum* at 25/776463 and 25/778464, the first with two large clumps and some smaller plants nearby, and the second with five healthy plants growing in a horizontal fissure beneath an overhanging rock. This was a perfect finishing touch to an excellent weekend.

SOUTH-EAST

Bishop's Wood Country Park, Rickmansworth, Hertfordshire – 12 June

Tim Pyner

Thirteen members and guests met our leader, Howard Matthews, at Bishop's Wood car park (51/070916) on a warm summer's day. The country park consists mainly of neglected heathland, which is now mostly covered with secondary woodland with conifers planted in some areas. However, some small areas of ancient woodland remain and here a combination of gravelly soils and London Clay help sustain some of the richest woodland flora in the county. *Pteridium aquilinum*, as to be expected, was prevalent in the drier areas. *Dryopteris filix-mas* and *D. dilatata* were both frequent and *D. carthusiana* and *Athyrium filix-femina* occurred in wetter areas. Occasional plants of both *Dryopteris affinis* and *D. borreri* brought the usual discussions and head-scratching. The banks of a small pond (51/068918) were home to the premier fern of the site – a solitary plant of *Oreopteris limbosperma*, found by Howard in 2008 and the only one currently known in Hertfordshire. This highlights the extreme scarcity of mountain fern in eastern England, as the situation is similar in adjacent counties. Other ferns in the vicinity were *Polystichum setiferum* and *Asplenium scolopendrium*, both in small numbers.

After lunch we had the pleasure of visiting the marvellous garden of David Bryson in Northwood, Middlesex. Dave is well known amongst exotic plant enthusiasts for growing an extraordinary range of succulents, bamboos, bananas and especially palms. Of the latter, the young example of the recently discovered glaucous-leaved and extremely rare *Trachycarpus princeps* was particularly outstanding. This will undoubtedly become an important ornamental palm when eventually more widely available. Dave is also very keen on ferns and immediately upon entering the back garden you realise that one is in the territory of an extremely skilled grower. Ferns are growing everywhere and a pair of massive trunked *Blechnum tabulare* immediately caught my eye. Both were recovering well from losing their fronds in the previous winter. Blechnums are obviously a favourite, with *B. magellanicum*, *B. nudum* and *B. chilense* growing well. Further down the garden were large plants of *Dicksonia antarctica*, *D. fibrosa*, *D. squarrosa* and *Lophosoria quadripinnata*. Around a small pond and stream *Matteuccia struthiopteris*, *M. orientalis*, *Onoclea sensibilis* and *Osmunda regalis* were thriving. Several tender ferns such as *Pyrrosia polydactylis* and *Niphidium crassifolium* grew in containers positioned on an impressive raised decking area. Other treasures were to be found in every corner and it always surprises me that so many ferns can be grown in a small area and not look crowded. For those of us who enjoy experimenting with the exotic side of horticulture the garden was truly inspirational.

Lesnes Abbey Woods & Roger Golding's House, London – 30 October Pat Acock

Roger had agreed to lead this meeting in south-east London, culminating at his house for our usual end-of-season slide-shows. Sixteen of us gathered in New Road near the centre of Lesnes Abbey Wood and Roger led us into the smaller part of the wood (51/476782). We were pleased to see most of the common ferns of this part of the country including *Dryopteris carthusiana*, *Polystichum setiferum* and *Athyrium filix-femina*. Crossing New Road into the larger part of the wood, we continued to add ferns to the list, especially near a chalk pit. John Edgington spotted *Ailanthus altissima* (tree of heaven) amongst the mostly British native trees. This species is becoming an increasing nuisance in London and the suburbs and it was a little worrying to find it in this more natural setting. Moving around to Lesnes Abbey, we found splendid voluminous colonies of *Asplenium adiantum-nigrum* all over the extensive old walls, along with *A. ruta-muraria*, *A. trichomanes* subsp. *quadrivalens* and *Polypodium interjectum*. A number of ferns, including *Polystichum setiferum* cultivars, had been planted around the visitor centre, which is always nice to find.

Back at Roger's house, while Roger and a few hand-picked volunteers slaved away in the kitchen putting the finishing touches to the banquet that he had worked on the night before, the rest of us walked down his vertiginous back path to examine his extensive collection of ferns and horsetails. The typical long, narrow terraced garden is divided into many different areas, all packed with ferns of the most diverse nature. Some are in sheltered areas close to the house and others are under decking or in his greenhouse. Roger has extensive collections of *Dryopteris* and *Polystichum* as well as many exotics that he has grown from spores and found in garden centres up and down the country. This is a truly magnificent collection.

After the midday meal we settled down to slide-shows, beginning with offerings from Howard Matthews, who always comes up with interesting features of his year's travels and includes pictures of ferns taken by his wife Tina (at Howards's insistence!) when she is in foreign parts without him. Julian Reed then showed a collection of slides from South-East Group meetings. Finally, Roger shared slides of a recent tour of China, which showed how diverse the fern flora is there. Tim Pyner, star pupil of our host in China, Professor Cheng, added information from his experiences and research since returning. Well done Roger, a superb day.

EAST ANGLIA

Indoor meeting, Little Thurlow, Suffolk – 30 January **Tim Pyner**

Seventeen members battled their way through wintry conditions and gathered in the warmth of Mary Hilton's house for our winter meeting. Fred Rumsey was our speaker and gave a fascinating account of the ferns of the Azores. In the first part of the talk Fred explained the geography, geology and climate of the islands and how these account for the diversity of the Azorean fern flora.

Following some splendid refreshments, Fred concentrated on the ferns themselves. We were presented with a wonderful array of fine photographs of ferns and lycophytes ranging from *Culcita macrocarpa* to *Ceradenia jungermannioides* and from *Huperzia suberecta* to *Marsilea azorica.* Fred also covered many of the naturalised species that can be found in the islands. I was particularly fascinated by the species that have only recently been discovered, such as *Asplenium cuspidatum* and a member of the *A. aethiopicum* group and I wonder what other species remain to be discovered. I would like to thank Fred for sparing his valuable time and preparing such an excellent presentation.

The whole group would also like to thank Mary Hilton for hosting the meeting.

Curtismill Green, Navestock & Warley Place, Essex – 22 May

Carl Berthold & Tim Pyner

Fifteen East Anglia and South-East Group members and guests met at Curtismill Green (51/513968) at the start of a beautiful spring day. Curtismill Green is an SSSI with areas of deciduous woodland and ancient grassland. Despite the proximity of the M25 the site is very quiet and little visited by the general public. The soils are a mixture of London Clay and chalky boulder clay that support a varied flora. As we made our way across the ancient pasture we thought it looked suitable for adder's tongue but none was spotted. Until we reached the stream at the southern end of the site ferns were sparse, with just a few *Dryopteris filix-mas* and *Pteridium aquilinum* spotted. However, the stream banks supported a large colony of *Polystichum setiferum* intermingled with many *Asplenium scolopendrium.* The former is very local in Essex and the latter scarce on natural substrates. Other ferns seen were *Dryopteris dilatata*, which was frequent, and also occasional *Athyrium filix-femina*. A few small *Dryopteris borreri* were also noticed. We made our way back through dry woodland with few ferns to some old gravel workings that had many clumps of *D. carthusiana*, many showing damage from deer browsing.

After lunch we entered the derelict gardens of Warley Place (51/583908), the former home of renowned plantswoman Ellen Wilmott. The grounds are maintained as a nature reserve by volunteers from the Essex Wildlife Trust and since our last visit in 1997 much progress had been made in controlling rampant sycamore and ivy growth. Several unusual trees are present such as *Meliosma veichiorum*, unfortunately declining rapidly, and the extremely rare climber *Sabia yunnanensis* subsp. *latifolia*. The trust members are currently identifying, cataloguing and propagating the surviving ornamental plants, mainly trees and shrubs. We were able to provide a list of ferns seen. One area recently cleared was a limestone rockery where several plants of *Cystopteris fragilis* were noticed. As this species is not native to Essex and is rarely cultivated, it would appear that the ferns have survived, possibly as spores, since the gardens were abandoned 75 years ago. In the old basement area superb specimens of *Asplenium scolopendrium* coated the floors and walls. Muntjac deer severely nibble the accompanying rarely seen herbaceous perennial eastern pellitory-of-the-wall (*Parietaria officinalis*) but fortunately ignore the hart's tongues. Other ferns seen were *Dryopteris filix-mas*, *D. dilatata*, *D. affinis*, *Athyrium filix-femina*, *Polystichum setiferum*, *Pteridium aquilinum*, and *Osmunda regalis* by the pond. Several monstrous forms of lady fern were seen; however, it is unlikely that they were original plants although they may have arisen from these. *Selaginella kraussiana* still grows in its original location but seems to be increasing as it was seen by a badger sett scores of metres away. Perhaps the badgers are inadvertently spreading it.

The gardens are stunning, with many of the original structures now being visible and giving a nice view of how the gardens were laid out in the past. Many of the plants that had once been managed, such as *Telima grandiflora*, are now naturalised over wide areas. This perennial was so abundant that in places the air was heavy with its beautiful fragrance.

Following the main meeting we were privileged to visit a nearby garden that would have been part of the original Wilmott estate. Deep in woodland was a hidden pond with a well established colony of what had been reported as the rare Essex native, marsh fern. Regrettably, only a nice naturalised colony of *Matteuccia struthiopteris* growing with the very attractive *Cardamine raphanifolia* greeted us, although this was probably an original planting.

I would like to express our thanks to John Cannell and Ailsa Wildig of EWT for making this visit so enjoyable.

John Innes Centre & Orchard End Pit Local Nature Reserve, Norwich, Norfolk – 19 June

Barrie Stevenson (a.m.) & Patrick Acock (p.m.)

The John Innes Centre, the house magazine of which justifiably boasts 'Excellence in Research and Training in Plant and Microbial Science' will celebrate its centenary in 2011. It is housed in brand-new prestigious buildings near the campus of the University of East Anglia on the outskirts of Norwich. Upon arrival we were given a warm welcome by our host and leader, Dr Steve Rawsthorne, who gave an introductory talk that was followed by a tour of the Centre. Finally we were shown the state-of-the-art Library, which was the main object of our visit. This amazing collection of books arrived mostly in an apparently arbitrary fashion as the result of gifts or bequests from a series of enlightened Directors in the early twentieth century. The collection is particularly strong in colour-plate books on a vast variety of botanical subjects and the Librarians had set out a superb display for our enjoyment. The pteridological bias was immediately apparent as the earliest book, a copy of Gerard's 'Herbal', was open at the delightfully stylised woodcut of *Osmunda regalis*. The nineteenth-century fern authors were well represented, including Hooker, Moore, Heath, Lowe and others. The display also included two extreme rarities: Sibthorp's *Flora Graeca* exhibiting a beautiful portrait of *Notholaena marantae* and Redouté's *Les Liliacées*, the binding of this particular volume stamped with the cipher of Napoleon Bonaparte. This little-known Library is open to members of the public by appointment. Details may be found on the John Innes Centre website: www.jic.ac.uk.

For the afternoon, Norfolk member Mary Ghullam led us to the east of the Norwich ring road near Thorpe St Andrew. Along White Farm Lane we saw *Athyrium filix-femina* and *Dryopteris filix-mas* growing by a wall. We descended into Orchard End Pit LNR (63/257086), which is probably an old chalk quarry, where we added *Pteridium aquilinum*, *Polystichum setiferum*, *Dryopteris dilatata*, *D. carthusiana*, *D. affinis*, *D. borreri* and *Asplenium scolopendrium*. The actual drop into the quarry was difficult but the scarce tree cover and steep sides allowed the ferns to grow luxuriantly.

Moving on via Thorpe St Andrew's church (63/260084), which had only *A. scolopendrium* on the walls, we arrived at another quarry called The Dell (63/261086). Helpful interpretation boards indicated the presence of *Asplenium scolopendrium* and told us it was "an old quarry of some sort". Besides the *A. scolopendrium* we observed *Dryopteris filix-mas*, *D. dilatata*, *D. affinis* and *Polystichum setiferum*. This quarry had a complete under-storey of ivy and brambles, so the ferns were fewer and not as luxuriant as those seen earlier.

At an entrance drive to Thorpe House preparatory school we found *Asplenium trichomanes* subsp. *quadrivalens* (63/258084) and nearer the school we added an unidentified *Polypodium* species on a roadside bank. Our additional findings pleased Mary, who Tim thanked for a pleasant contrast to the morning meeting.

How Hill Farm, Ludham, and Catfield Fen & Barton Broad, Norfolk – 31 July

Bryan Smith (a.m.) & Mary Ghullam (p.m.)

This turned out to be one of our most popular East Anglian meetings in recent years, with 21 people attending. My initial concern was that we would have to limit the day to just 12 (the capacity of the boat for the afternoon), but we managed to get around that (see later). How Hill Farm (63/373190) has been owned for over 100 years by the Boardman family, and the present owner, Peter Boardman, was our enthusiastic guide for the morning. Peter laid on tea and cakes for our arrival and gave us a brief history of the farm. The gardens include rare

photo: B.D. Smith

How Hill, Norfolk

Standing: Leonard & Maria Winning, David Austrin, Carl Berthold, Peter Boardman, Barrie Stevenson, Dick & Anna Lincoln, Alexandra Bell, Alex Prendergast, Tim Pyner, Howard Matthews, Julie Reid, Neil Dickinson, Bryan Smith
Seated: Nathalie Staples, Georgina Snelling, Gill Smith, Karen & Steve Munyard, Mary Ghullam, Tina Matthews

conifers, rhododendrons, azaleas, ornamental trees, shrubs, bamboos and herbaceous plants, as well as a holly collection that was awarded the Wolf-Fenton Award by the Holly Society of America. On the way to our main area of exploration, we passed through a walled garden with *Asplenium scolopendrium* and *Cyrtomium falcatum*, and noticed *Lygodium japonicum* growing inside a conservatory. Crossing the road, we entered a large garden with views over the River Ant and Turf Fen Mill. Work on this started in 1968, with three acres of Broad dug by 1978. The swathes of *Dryopteris dilatata*, *Athyrium filix-femina* (including red-stemmed forms) and *Osmunda regalis* were something to behold. Apparently, many plants of the *Osmunda* had appeared once the drainage ditches had been dug, and we noted one or two plants with particularly narrow pinnae. Other ferns recorded included *Dryopteris carthusiana*, *Matteuccia struthiopteris*, *Equisetum arvense*, and there was a large area of *Blechnum chilense*. Last, but by no means least, the garden included an eclectic array of old stone masonry. We thanked Peter for his kind hospitality and moved on to our next site.

After a picnic lunch at Barton Broad Staithe (63/357224), some of the party explored a nearby derelict boat shed. The floor was covered in *Dryopteris filix-mas* and *Asplenium scolopendrium*, but lurking among them was one fertile plant of *Adiantum capillus-veneris*. Trouble with the outboard motor of our boat meant a long wait and then a decision to try nearby Catfield Fen Reserve (63/367212) for a view of *Dryopteris cristata*. *D. dilatata* was glimpsed in the woodland edge, and we soon found *Thelypteris palustris* growing with *Myrica gale* and *Cladium mariscus*, the latter being cut for commercial use. A little further on there was fertile *Dryopteris cristata* growing in the shelter of sallow with *D. carthusiana* and *Osmunda regalis*. We only managed to find a bit more in the thick sedge, but the edge of the large dyke allowed us to compare the flowers of three of the rarer umbellifers for which the Broads are well known – *Cicuta virosa*, *Sium latifolium*, and *Peucedanum palustre*, the food plant of the swallowtail butterfly.

At this point we were joined by Norfolk Wildlife Trust warden Mark Amiss with news that the boat was fixed and he could take us over to the island on Barton Broad. The party split into two groups that were shuttled across the Broad. Whilst waiting, the second group found *Pteridium aquilinum* and *Polypodium* sp. near the car park. We landed at 63/360215 to see much more *Dryopteris cristata*, larger and growing with fertile *Thelypteris palustris* and *Dryopteris carthusiana* as before, but also with *D. filix-mas*, *D. dilatata* and *Athyrium filix-femina*. Despite diligent searching, we did not discover any hybrids, but did find three plants of *Osmunda regalis* near the boat mooring. Mark told us that when the fen vegetation, including much *Calamagrostis canescens*, was cut recently there were a lot of *D. cristata* plants. However, during our brief visit we found it growing only in the wetter northern part of the island.

On our return, the first group had explored the lane, finding a roadside bank of *Polypodium* interspersed with *Equisetum arvense*. The lack of fertile fronds, however, prevented further identification.

Indoor meeting, Oulton Broad, Suffolk – 23 October

Tim Pyner

The regular autumn meeting at Oulton Broad was once again a great success due to the dedication and organisation of our hosts, Gill and Bryan Smith. Fourteen members enjoyed an excellent lunch followed by a slow wander around their fantastic garden. Heavy overnight rain had made the ground very soggy but the ferns were loving it. I am always amazed how Bryan and Gill's ferns always look twice as large as mine despite living in a comparable climate. Perhaps the shelter given by the surrounding trees help, although they must draw up a lot of the moisture too. The rice paper tree, *Tetrapanax papyrifer*, was looking especially awesome.

Later, various members gave presentations on some of the year's national meetings. As usual these left one wanting the next season to arrive as soon as possible. Many thanks to Gill and Bryan for all their time and effort in ensuring a successful meeting.

NORTH-WEST

Gardens of South Lakeland – 15 May

Peter Campion

Suddenly it was summer, and Alec Greening had organised no less than four visits to ferny gardens of note in south-east Cumbria and fixed a glorious sunny day to go with it.

First we went to Robert Sykes' garden at Crosthwaite for a very welcome cup of coffee in his 'barn' and to enjoy the subtropical area in the corner. A lot of propagation and the 'misting' tank were demonstrated, with the benefits visible. We moved outside to inspect the tender plants that live in the barn for the winter and move out to the polytunnel once the frosts are over. Robert mourned the loss of a number of *Polystichum* and many of his collection of *Polypodium* from the top of his garden over the winter. However, *Polystichum setiferum* 'Robert Sykes' and one of its offspring were thriving along with *Osmunda regalis* variations and exotics. There was much to enjoy, for example *Athyrium vidalii*, *Pteris umbrosa*, *P. tremula*, *Pellaea viridis* var. *macrophylla*, *Blechnum chambersii* and *Cystopteris moupinensis*.

Somehow we had to tear ourselves away and move to High Cross Lodge in Troutbeck and Linda Orchant's stunning and beautifully tended garden. Linda has quite a number of mature *Dicksonia antarctica* tree ferns carefully arranged in a garden designed to be mainly for foliage. A number of them perished in the frosts but most had come through, and yew and acacia were found growing as epiphytes on them. The sun shone and we enjoyed the blend of magnolias, palms, hostas, *Polystichum*, *Athyrium* varieties, *Polypodium vulgare* and *Dryopteris* species. We sat and enjoyed our lunch, chatting to our hostess and at peace with the world.

We took our leave and travelled down to Ferndene in Kendal. Over the years there have been a number of visits to Ferndene, now the home of David and Annabel Durnford and their children. The garden is of particular interest to the Society as it was the home of Joseph Wiper, one of the founders of the BPS, up to 1911 when he emigrated to Canada taking many but not all of his ferns with him (see *Fern Gazette* for 1966 and the *Bulletin* for 1991.) The Durnfords have been careful to preserve the existing ferns and we were able to enjoy the famous crested bracken *Pteridium aquilinum* 'Cristatum' in spite of it being early in the season. We marvelled at several grand old stands of *Polystichum setiferum* Divisilobum Group, which must date back to Wiper's days. Other goodies included crested *Dryopteris filix-mas* and *Athyrium filix-femina* in both red and green-stiped forms.

photo: P.J. Campion

Bruce Brown looking at *Polystichum* at Ferndene, Cumbria

Thanking our hosts, we sped on to Pear Tree Cottage, home of Linda and Alec Greening, with a beautifully organised, labelled and laid out garden. With tea and 'scrummy' cake in hand, we were able to wander and admire lots of well chosen plants including *A. filix-femina* 'Roaring Sea'. An inspiring opening day to the season; thanks to Alec for organising it all.

Hay Bridge Nature Reserve, Furness, Cumbria – 19 June

Steve Mees

Hay Bridge Nature Reserve nestles between Windermere and Coniston in the Lake District. It is privately owned, with access limited to members of the Hay Bridge Nature Reserve Society or by arrangement with the Warden, Keith Loxom. The reserve has a diverse range of habitats, including wetland, and woodland with beech and ancient yew. On a beautiful sunny morning the group, led by Peter Campion, met in the car park (34/336876). Making our way towards the area of wetland our attention was caught by roe deer bounding through the waist-high grasses. More prosaically, it was also caught by clumps of *Athyrium filix-femina*, a small *Asplenium trichomanes* and a somewhat desiccated *Polypodium vulgare* by the Reserve's reception building.

photo: P.J. Campion

Steve Mees examines *Osmunda regalis* at Haybridge Nature Reserve

The wetland area is accessed by raised walkways. Normally it is quite possible to sink waist-deep in some areas of the Moss, but the lack of spring rainfall meant that we were able to wander, with care, pretty much at will. With the group spreading out to forage for ferns, it wasn't long before *Dryopteris carthusiana* with its scarce, pale scales and *D. dilatata* had been spotted. A number of big old clumps of *Osmunda regalis* were seen, some with evidence of having been grazed by the deer. Naturally, in areas, there was plenty of *Pteridium aquilinum* to be seen. Soon, we found ourselves in a seriously squidgy bit of the Moss but the risk of getting wet feet was more than rewarded by sightings of *Equisetum arvense* and *E. fluviatile*. It was here too that we came across a clump of that most elegant of ferns, *Thelypteris palustris*, with its long slender stipe and delicate fronds.

photo: P.J. Campion

Lunch at Haybridge Nature Reserve

David Benham, Betty King, Nigel Gilligan, Ann Haskins, Melville Thomson, Nan & Sam Hicks

Lunch was enjoyed outside the Reserve buildings in the hot sunshine, with a

buzzard circling high overhead. Afterwards, we made our way through the welcome coolness of the beech woods where we spotted, perhaps unsurprisingly, the beech fern, *Phegopteris connectilis*, with its characteristic forward-facing lowest pair of pinnae. Along the path we also saw *Blechnum spicant* and a fine example of *Oreopteris limbosperma*, the lemon-scented fern. This was unofficially awarded the title of 'Fern of the Day' as it is not that commonly seen and it was a very handsome plant. There was some discussion about the identification of *Dryopteris affinis* agg. taxa. Suffice it to say that we were reasonably convinced about a *D. cambrensis* on the basis of the scales, and agreed that one plant "showed many characteristics of *D. borreri* morphotype *robusta!*"

The reserve is not only rich in ferns. The insect life that was spotted during the day included the carrion beetle, *Oieceoptoma thoracicum*, four-spot chaser and golden-ringed dragonflies, ringlet butterfly, long-horned moth, peacock butterfly caterpillars and the harvestman spider *Rilaema triangularis*. (Thank you, David Benham and Nigel Gilligan, for the entomological expertise.)

The day ended back at the car park, with some members heading off to take advantage of Nigel Gilligan's kind invitation of tea and cakes at his garden. Thank you to Peter Campion for organising the trip and to Keith Loxom, the Warden, for making us feel welcome.

Scordale, Hilton, near Appleby, Cumbria – 3 July **Frances Haigh**

This attractive valley lies in the North Pennines within the Appleby Fells SSSI, and also within the Warcop MOD Training Area. Because of army activities access is limited but open days can be found by consulting www.access.mod.uk.

From Hilton village (35/735207) a group of eight followed the beck upstream, at first through an area of rough grassland, gorse and scrub where we came across the familiar *Dryopteris dilatata*, *D. filix-mas*, *Athyrium filix-femina*, *Pteridium aquilinum* and *Equisetum arvense*. Inside a small lime kiln were *Asplenium scolopendrium*, *A. trichomanes* subsp. *quadrivalens* and *Cystopteris fragilis*. Finding *Asplenium adiantum-nigrum* on the top stonework was a pleasant surprise. A little further on was plenty of *Blechnum spicant* on damp grassy banking together with some *Oreopteris limbosperma*. Several plants of musk thistle (*Carduus nutans*), near their recorded northern limit on the west side of Britain, were growing on grassland closer to the beck. After two kilometres or so the valley sides steepened and exposed limestone appeared so it wasn't long before *Asplenium viride* was found. Nearby, in wet conditions was *Equisetum palustre*.

And so to the screes lying below Dow Scar (35/763227, altitude 350+ metres). This was the ferniest place on the walk, holding both calcicoles and calcifuges, sometimes in surprisingly close proximity. It didn't take long to discover *Cryptogramma crispa*, *Polystichum aculeatum*, *Phegopteris connectilis*, *Polypodium vulgare* and *Asplenium ruta-muraria* as well as many of the ferns seen earlier. The superficially similar *Gymnocarpium dryopteris* (in small amounts) and *G. robertianum* (plentiful) were soon sorted out using the presence of glands on the latter to help clinch the identification. We weren't so lucky in trying to identify *Dryopteris oreades*. Every likely candidate we examined turned out to be *D. filix-mas*. One of our objectives was to see if any *Polystichum lonchitis* could be found. There are old records of this though the plants had been lost, apparently in scree movements. It would have been good to have seen signs of recolonisation but we found the screes too steep and unstable to allow a full search.

Next, we spent time exploring the areas around the nearby disused mines, hoping for other pteridophytes, especially *Botrychium lunaria* and *Selaginella selaginoides*. But as nothing new could be found we decided to be content with what had been seen and returned down the valley.

Rydal Valley, north-west of Ambleside, Cumbria – 28 August **John Grue**
(Leader: Alec Greening)

We met in heavy rain at the White Moss car park (34/348066). The visit area has a wide range of habitats – a microcosm of the Lake District, yet inspection of the *Flora of Cumbria* shows that many expected species are not recorded for the three tetrads concerned. We hoped to rectify some omissions. (* = new tetrad record.)

Our first study area was a typical Lakes surprise – a hidden ghyll and waterfall in Dunney Beck, only a few metres to the east of the car park. We quickly found *Athyrium filix-femina*, *Polypodium vulgare*, *Dryopteris dilatata* and a few *D. filix-mas*. There was an '*affinis* agg.' which we decided was probably *D. borreri*, a clear *D. affinis* subsp. *affinis*, and another nearby was determined after some discussion between Mike Canaway and Bruce Brown to be *D. borreri* morphotype *rhombidentata**. Our search for filmies had the usual result, but we enjoyed the lush bryophyte flora. We found a single plant of *Asplenium scolopendrium* – an unusual sight on Lakeland slate. Moving out of the ghyll bed, Alec pointed out a very large colony of *Phegopteris connectilis*. A little higher were some excellent plants of *Oreopteris limbosperma*, several of which were growing in shade. *Pteridium aquilinum* was the next tick and a more definite *D. borreri* as we headed up to the Coffin Path that links Grasmere and Ambleside. Just to the west at Whitemoss Tarn (a favourite skating spot for the Wordsworths) we saw splendid examples of *Equisetum fluviatile*, but no other species.

As we walked the Coffin Path towards Rydal we found a very clear *Dryopteris cambrensis*, several more good patches of beech fern, and some 'different' polypodies, confirmed by microscopical examination by Bruce Brown as *P. interjectum**. Here also were large and lush *Cryptogramma crispa*, growing better on wall bases than they usually manage high on the mountains, *Asplenium trichomanes*, several crested *Dryopteris affinis* subsp. *affinis*, heavily crested *Athyrium filix-femina*, and some ramose *Polypodium vulgare* as we reached Rydal Hall (35/365063).

Here, by prior arrangement, we met the head gardener, Iain Turnbull, who gave us a brief account of the history of the recently restored gardens (fully open to the public), originally designed by Thomas Hayton Mawson in 1911. He showed us *Asplenium trichomanes* colonising a 'cave' and we suggested some other ferns for this spot. We saw the new beds of cultivars, *Onoclea* doing well from pre-restoration plantings but *Matteuccia* struggling. Iain wanted our opinion on the ferns in the large ghyll that crosses the gardens and estate, as it has become a venue for the exciting but potentially damaging activity of Ghyll Scrambling. Because of the heavy rain we could not get far into the Ghyll, but we did find a red-stemmed *Athyrium filix-femina*, *Dryopteris affinis*, astonishingly our first *Blechnum spicant* and what seemed to be a very clear *Dryopteris borreri*. Near the café we ticked *Polystichum aculeatum* and found several more ramose or capitate polypodies and affinises. We left Rydal Hall and its enticing café with promises of returning to survey Rydal Beck and repay Iain for his time with gifts of native ferns for his newly developed fern beds.

Heading west we found a magnificent *Osmunda regalis* in Dora's Field – possibly a remnant of plantings by the Wordsworths. On the bank at the outflow of Rydal Water was the largest colony of *Onoclea sensibilis* any of us had seen, extending for 30 metres or more along the stream. As we walked along the track above Rydal Water, the rain finally ceased and we could appreciate the magnificent views across the valley and the many splendid examples of *Cryptogramma crispa* growing in the walls by the side of the track.

At the first of the quarries on Loughrigg we found *Asplenium adiantum-nigrum* in tight tufts in the slate cracks. In the caves were huge sheets of *A. trichomanes*; many plants had huge pinnules, up to 12 millimetres long. Here also were tiny plants of *A. scolopendrium*. In the quarry outside the cave was an enormous *Dryopteris*, confirmed microscopically by Bruce Brown as *D.* × *complexa**.

Further up the hill at the main quarry (35/354057) we found two confusing *Asplenium trichomanes* plants that caused much discussion; Michael Hayward took samples for review. At the entrance to the cave was a *Dryopteris*, possibly *D. affinis* subsp. *affinis* that exhibited all the characteristics of 'Polydactyla Mapplebeck' with large crests and a branching rachis. The walk back was all downhill through acres of bracken, with more *Blechnum spicant* by the side of the track.

No oak fern and no filmies were found, only one horsetail and only a few hard ferns.

photo: J.D. Grue

Bruce Brown with *Dryopteris* × *complexa* on Loughrigg, Rydal

Annual General Meeting, Holehird, South Cumbria – 16 October Peter Campion

Thirty members assembled for the seventeenth North-West Group AGM. The day was bright and sunny and more than one person commented that we should be out enjoying the gardens. After coffee, however, we sat fascinated by Fred Rumsey's description of the Azores. What fun to have a group of islands to explore with unique taxa to find and a giant lettuce!

After our packed lunches, our AGM gave us the Secretary's and Treasurer's Reports. The financial statement was accepted and Frances Haigh thanked for her work. Reports on the year's programme were positive, and gratitude was expressed to all the volunteer leaders, especially Alec Greening who had hosted two. Those who had attended all or part of the National Meeting in Keswick expressed thanks to Mike Porter and Peter Campion for organising the various field trips and social events. Lizzie Evans briefed us on Publicity for the BPS with logos and other useful material to promote the Society. Well done Lizzie.

A portfolio of preserved ferns from all over the world was auctioned in aid of Macmillan Nurses and was knocked down to Jack Garstang for £60, which, added to the sum raised from the sale of Ken Trewren's ferns and half the value of the sale of the NW Group's ferns, amounted to a useful sum to send back to Ken. Thanks to all for their generosity.

The prize for the best indoor fern was won by Melville Thomson, but he graciously abdicated the crown so it was awarded to Harvey Shepherd for his outdoor fern. The fern photographic competition was won by John Grue. As usual, Alec Greening also produced a stunning quality photograph. We enjoyed an open forum after the AGM, with fascinating short presentations by members on a number of items. Something to do again as it is much less daunting to prepare and we get a taste of something new.

After tea and cakes tea provided by members, the meeting closed after a very pleasant day.

BOTANICAL CORNWALL GROUP

Ian Bennallick & Matt Stribley

St Anthony Head & Zone Point, east of Falmouth – Wednesday 30 December 2009

In cold but sunny weather, five hardy souls gathered for a mid-winter walk to work off the Christmas dinner and explore the tip of the Roseland Peninsula to see what might be around. Our expectations were low, but we made a couple of unexpected ferny discoveries. St Anthony Head (10/8431) is picturesquely situated at the very end of the Roseland Peninsula, on the eastern side of Carrick Roads – the broad expanse of water that is the mouth of the River Fal – and we could look across to Falmouth and Pendennis Castle. Our walk took in Zone Point just to the south, Place to the north, and then Carricknath Point where, with oystercatchers piping on the rocks below, we enjoyed our picnic lunch looking across to St Mawes. Beneath a large ivy-clad rock beside the path between Carricknath Point and St Anthony Head (10/846318) was one plant of *Asplenium obovatum* subsp. *lanceolatum*, with extremely large fronds. Although this fern has been recorded in grid square 10/83 (last record 1997), this was the first time that it had been recorded on the eastern side of the Fal, and puts it into v.c. 2 (East Cornwall) rather than in v.c. 1 (West Cornwall), pleasing the leader (BSBI v.c. 2 recorder) immensely! Until now, this fern had apparently been absent from the coast on this part of the Roseland Peninsula, with the nearest plants being several miles east at Nare Head 10/9137. It is probably present on the coast between these two populations, but much of the coast is inaccessible; further intrepid expeditions are planned.

Just south of Carricknath Point are two small sandy coves, Great Molunan and Little Molunan. On the low cliffs between these are areas of freshwater tufaceous deposits, and water was dripping profusely even in the very cold and frosty winter of 2009/2010. These active coastal terrestrial tufa accretions appear to be rare in Cornwall with its predominantly acid rock, and support several rare species. The vegetation had died back since the summer when we had seen the globally rare and threatened shore dock, *Rumex rupestris*, long known at this site. Remarkably, inspection of some of the more precipitous parts of the cliff revealed a few colonies of maidenhair fern, *Adiantum capillus-veneris*, on the tufa. This is the first time it had been seen here and only the second record in a natural habitat in the River Fal/Helford River estuary coastline area. The other is an old record from "a cave near Maenporth" (10/7929), west of the Carrick Roads, which was found by Cocks in 1856. It has been recorded since at least 1959 from a wall on Church Hill, St Mawes (10/845329) just over one kilometre to the north across the Percuil River and there are numerous records on man-made habitats around the Cornish coast and at sea-level on inland parts of the larger river systems. For example at Cotehele (20/423680) it is luxuriant on the inner parts of abandoned lime kilns, and in Penzance it is scattered on old walls. Whether these are colonisations from native coastal sites or introduced from elsewhere is uncertain.

Brown Willy (20/17 to 20/18), Bodmin Moor – Sunday 15 August & Sunday 3 October

Rediscovering beech fern, *Phegopteris connectilis*, was our aim on a walk to Brown Willy (20/1579), the highest hill in Cornwall, on the rugged and elevated granite boss of Bodmin Moor. Brown Willy is a long ridge of granite in the northern part of the Moor, with several exposed weathered granite rock outcrops (known as tors) and loose granite boulders (known as clitter). Rising to 420 metres, it is not a place to visit in rain or mists, as was experienced by the group on at least two other searches in the last decade. This time the group of seven who met up at the car park (20/138818) north of Rough Tor, the adjacent hill, enjoyed sunshine and warm breezes.

First seen on Brown Willy by the Cornish Moneywort Club before 1909 (see Davey, *Flora of Cornwall*, 1909), the last sighting of beech fern in Cornwall was in about 1930 by Major E.W.M. Magor, who found it on Brown Willy and on Rough Tor, both in v.c. 2. At about the same time he also recorded oak fern, *Gymnocarpium dryopteris*, on the former. We

made our way up over the very heavily grazed turf around Rough Tor and down into the stream valley at the foot of Brown Willy, where we found some lemon-scented fern, *Oreopteris limbosperma*, beside the moorland stream. This fern is relatively common in such situations on Bodmin Moor, but is very local and rare in other parts of Cornwall. In 2006, Ian Bennallick had found Brown Willy to be grazed rather heavily by sheep and cattle, with much of the grass in between the rocky areas short-grazed, and thought this might be detrimental to the beech fern's survival. (Sheep had been observed to have pulled out plants of fir clubmoss, *Huperzia selago* – another rare Cornish plant – from between clitter on the neighbouring Rough Tor.) However, the grazing now appeared to have been relaxed somewhat – heather, *Calluna vulgaris*, was flowering well in places – and it was almost under-grazed. Although we had resigned ourselves to beech fern's presence being extremely unlikely, on previous searches the habitat had looked suitable for it and it now seemed more likely that if it were present, it would be visible. Thinking that it would most likely be in a damp crevice on the northern side of the hill, the tors and clitter of the upper north-western side were checked methodically. Tunbridge filmy fern, *Hymenophyllum tunbrigense*, and Wilson's filmy fern, *H. wilsonii*, were found in small patches in between the clitter, but no beech fern.

We took lunch near the top of Brown Willy, enjoying the wonderful views across the whole of eastern Cornwall from coast to coast (and north to Exmoor and east to Dartmoor) and again resigned ourselves to a nice but ultimately unsuccessful day. However, David Pearman had reported that, only days before Andy Byfield had found/refound four colonies of beech fern on Dartmoor in Devon, the next largest granite moorland to the east of Bodmin Moor. He had found it in two different types of habitat – in granite crevices on south-east facing tors and in shaded wet hollows in valleys. With this in mind, we started exploring the tors on the eastern side of the hill. David Pearman saw maidenhair spleenwort, *Asplenium trichomanes* subsp. *quadrivalens*, in a horizontal crevice not far from the top of the hill. In Cornwall this fern does not normally grow in such an acid situation as a granite tor, so it was worthy of a second look. It was only as we checked the other plants and small ferns in this crevice in a vertical south-east facing rock outcrop at about 412 metres (just below and south-east of the highest point of Brown Willy) that the beech fern was discovered (20/15907994), growing with small lady fern, *Athyrium filix-femina*, and broad buckler fern, *Dryopteris dilatata*. The colony had ten small green fronds and three or four dead ones on about six small plants – or perhaps it was one large plant spreading along the crevice.

We had not been prepared to find such small fronds and this is probably the reason that the fern had eluded detection since 1930. Page (*The Ferns of Britain and Ireland*, 1997) remarks that "[*P. connectilis*] also spreads, in more stunted form, to moist patches on damp rocky slopes and cliff ledges in mountains to about 610m". This fits the habitat where it is found on Brown Willy perfectly, as the substrate in the crevice was wet to the touch. Despite searching similar crevices, no other beech fern (nor oak fern) plants were found. We walked back to the car park, very pleased with the find.

photo: M. Stribley

***Phegopteris connectilis* on Brown Willy, Bodmin Moor**

BRITISH PTERIDOLOGICAL SOCIETY

MEMBERSHIP LIST

December 2010

NOTES

E-mail addresses are included for those members who provided them.
These are given in the format supplied and we cannot guarantee their continued validity.

<u>Please</u> remember to notify the Membership Secretary of any changes of postal or e-mail addresses.

Amendments to this list will be published in future issues of the *Bulletin*.

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British Pteridological Society

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Website: www.eBPS.org.uk

Officers and Committee 2011

NB. Names in italics have been put forward for election/appointment in 2011

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Spurred on by this find, Matt Stribley revisited the site on 3rd October. He discovered another colony of about ten very small fronds, yellowing in the autumnal conditions, in a similar crevice just further south (20/15947968). More significantly still, in a shaded opening between granite blocks (20/16007965) he found a colony of at least forty fronds, still green and of a more usual size, with some sporing. It is likely that this fern grows elsewhere on the tor, and further searches may be successful.

Whether beech fern still grows on Rough Tor is unconfirmed. Maidenhair spleenwort was recorded on Brown Willy in 1969 by J.W. Dyce and in 1997 by Mary Atkinson, and has also been recorded for Rough Tor (20/145808) since 1992, but no beech fern was reported on those occasions. However, since the two species do grow close together on Brown Willy, the spleenwort may be a good indicator species and it is well worth checking for beech fern in other places where maidenhair spleenwort grows on granite tors in Cornwall, including Rough Tor.

Historically there is an even more south-westerly record for beech fern in Cornwall. Ralfs found it before 1909 "at the base of Carn Galva" (Carn Galver) in West Penwith (10/43, v.c. 1). This is a granite hill ridge very similar to Brown Willy, with creviced granite tors and clitter, and similarly has both filmy ferns and also maidenhair spleenwort. Ralfs found both of the filmy ferns on Carn Galver and despite earlier doubts by local botanists, having seen the situation where the beech fern grows on Brown Willy, his record for beech fern may well be correct. Further searches for beech fern on both Rough Tor and Carn Galver will be made in 2011.

Luxulyan Valley (20/05), north-east of St Austell – Saturday 2 October

This was a joint meeting with the Friends of Luxulyan Valley. We walked from Blackhill car park (20/058573) along the Luxulyan Valley – a wooded valley draining the St Austell granite boss – towards the Central Cornwall Dry in North Hill Wood, the 'dries' being structures remaining from the once thriving china clay industry that dominated life in the area. The woodland walk took in several common species such as luxuriant examples of *Dryopteris dilatata*, *Athyrium filix-femina* and *Polystichum setiferum*, with *Asplenium scolopendrium*, *A. adiantum-nigrum* and *A. trichomanes* subsp. *quadrivalens* on the bridge at Trevanney Wood (20/057568) and on the old granite-walled dries at 20/065562. *A. obovatum* subsp. *lanceolatum* was growing on a shaded road hedgebank at 20/057569. Matt Stribley collected samples of some very large scaly male ferns, which proved to be *Dryopteris affinis* subsp. *paleaceolobata* (beside the track at 20/063567 and in a thoroughly overgrown quarry at 20/058568), and *D. cambrensis* subsp. *cambrensis* (20/063566).

The main focus of the walk was to relocate the colonies of *Hymenophyllum tunbrigense* that grow here on the faces of large and shaded, often rounded, granite boulders. In Trevanney Wood (20/058567), not far from the road, we found a good colony coating the lower portion of such a boulder, and there were some really luxuriant patches near the old quarry at 20/058568.

It was noted that around the granite rocks some of the invasive non-native *Rhododendron ponticum* had been killed. In the Luxulyan Valley there has been a recent discovery of the pathogen *Phytophthora ramorum* and a more virulent strain, *P. kernoviae*, fungus-like plant diseases spread by spores. Though the common name is 'sudden oak death' it is not confined to oak and has attacked a large number of species, hence the worry is that it may spread to native oaks and other trees and thus explaining the rapidity of clearance of the host plants. Rhododendron is the most common primary host of the *Phytophthora*, so in 2008 contractors working on behalf of DEFRA and Restormel Borough Council cleared large areas of rhododendrons in the valley. In 2009 it was confirmed that *Phytophthora* was also found in bilberry, *Vaccinium myrtillus*, plants in the valley. Although it is good news that the rhododendron is being cleared from around the granite rocks, concern was expressed as to the effect on the large *Hymenophyllum tunbrigense* colonies present of the chemicals being used. Further liaison with the authorities is being undertaken to ensure that the colonies here and elsewhere in the valley are not affected.

SCOTLAND

Logan Botanic Garden, Dumfries & Galloway – 15 May

Frank McGavigan

(*Participants:* Bridget Laue, Paul Sharp, Frank McGavigan, Yasmin Nannis, Chris Nicholson, Kerstin Svanberg, Ken Trewren, Gaya Yaacob.)

Logan Botanic Garden, south of Stranraer in south-west Scotland (25/097426), enjoys a mild, oceanic climate and therefore seemed a good place to visit early in the season. But of course we had not anticipated the severe winter of 2009-10, which took its toll of Logan's exotic ferns, due not so much to the low temperatures (they have experienced lower) but, as elsewhere, to the prolonged nature of the cold spell. To make matters worse, over the last few years Logan has been undertaking extensive new plantings of ferns and the small plants suffered particularly badly. In the battle for survival against cold, size matters.

Despite the fern corpses scattered around the garden there was plenty to see and as we were shown round by the Garden Supervisor, Colin Belton, he was able to point out things we might not otherwise have noticed. Among the survivors were Logan's iconic tree ferns, *Dicksonia antarctica* (although some young plants at ground level had died), *Culcita macrocarpa*, *Blechnum nudum*, *Cyathea smithii* (with new fronds showing), *Cyathea dealbata*, *Thyrsopteris elegans*, *Todea barbara* and *Blechnum discolor*. A recent planting of *Cyathea dregei* looked 'done for', but a later visit showed that some plants had survived unscathed while others had succumbed. Most of these semi-tender things are given a protective wrapping each winter. In the rush to get the job done in 2009 some *Blechnum cycadifolium* had been forgotten, but surprisingly the unwrapped ones survived better than the wrapped ones.

photo: F. McGavigan

Logan Botanic Garden
Gaya Yaacob, Kerstin Svanberg, Yasmin Nannis, Ken Trewren,
Bridget Laue, Paul Sharp, Chris Nicholson, Colin Belton

Logan has carpets of what used to be known as *Blechnum tabulare*, better known now as *B. chilense*, but of course it is neither. The latest name I understand is *B. violaceum*, though no doubt that is not correct either. The garden has plants of true *B. tabulare* and *B. chilense* for comparison (at least it did, but the *B. tabulare* looked as if it had been wiped out by the winter). But one of the advantages of large gardens like Logan is that there is room for whole swathes of one fern species like this *Blechnum* – well worth a visit for that alone.

Dawyck Botanic Garden, near Peebles, Scottish Borders – 6 June Roger Golding

This field meeting followed on from a Committee meeting at the Royal Botanic Garden Edinburgh (RBGE) the previous day, so was attended by several Committee members as well as Scotland Group members, a total of 13. Dawyck is 28 miles south of Edinburgh, set in the upper Tweed Valley (36/167352). It covers 25 hectares and has an almost continental climate with relatively cold winters and moderate rainfall, which suits plants from drier, colder parts of the world. The garden's beginning dates back to the late seventeenth century and it is particularly strong in conifer species (including some brought back by David Douglas) and rhododendrons. It was gifted to the nation in 1979 by the Balfour family, becoming part of the RBGE.

After coffee and a short film on the history of the garden, we made our way slowly up through the Lower Scrape Glen and the Rhododendron Walk; on the way Mary Gibby pointed out a variety of beech with appropriately fern-shaped leaves – *Fagus sylvatica* 'Asplenifolia'. We admired the dramatic colour contrast of massed fronds of *Matteuccia struthiopteris* against a backdrop of a brilliant orange-flowered azalea. Beautiful stone urns (dating from before 1850) set on pedestals were decorated with carved *Asplenium scolopendrium* fronds. A little further on, blue poppies (*Meconopsis* sp.) were in bloom and we spent several minutes admiring them before more fern species distracted us. We encountered a wide variety of fern species, both native and foreign, and it was sometimes hard to tell what was planted and what might be occurring naturally. Certainly some of the foreign hardy species were naturalising well, including *Gymnocarpium disjunctum*, the western oak fern from north-west USA, a larger cousin of our own *G. dryopteris*. Ken Trewren explained some of the differences between the British species of the *Dryopteris affinis* group, all three being present. Several plants of *Woodsia ilvensis*, grown at RBGE and planted out here, seemed to be surviving well. Further up in a clearing in the woodland we were shown the plantings of progeny from Mary Gibby's *Dryopteris* hybridisation experiments. I particularly liked a large specimen of *Dryopteris* × *ambroseae* (*D. dilatata* × *D. expansa*) and also the hybrid between *D. affinis* and *D. oreades*, provisionally but not yet formally named *D.* × *protocambrensis*, which is a wild find originating on Arran contributed by Tony Church.

photo: A.M. Paul

Dawyck Botanic Garden

Ken Trewren & Yvonne Golding beside *Dryopteris affinis* × *D. oreades* from Arran

Following lunch in the café I had to make my way back south; a few others stayed on and saw another planting of hybrid *Dryopteris*, and Howard Matthews found *Asplenium ruta-muraria* growing on the chapel wall.

List of fern species recorded at Dawyck Botanic Garden	
Adiantum pedatum	*Dryopteris* × *ambroseae* (*D. dilatata* × *D. expansa*)
Asplenium ruta-muraria	*Dryopteris* × *sarvelae* (*D. carthusiana* × *D. expansa*)
Asplenium scolopendrium	*Dryopteris affinis* × *D. oreades* ("*D.* × *protocambrensis*")
Athyrium distentifolium	*Dryopteris campyloptera* × *D. expansa*
Athyrium filix-femina	*Dryopteris carthusiana* × *D. intermedia*
Blechnum penna-marina	*Equisetum sylvaticum*
Blechnum spicant	*Gymnocarpium disjunctum*
Cystopteris fragilis	*Matteuccia struthiopteris*
Dryopteris aemula	*Osmunda claytoniana*
Dryopteris affinis	*Osmunda regalis* 'Purpurascens'
Dryopteris borreri	*Polypodium vulgare*
Dryopteris cambrensis subsp. *cambrensis*	*Polystichum aculeatum*
Dryopteris cambrensis subsp. *pseudocomplexa*	*Polystichum braunii*
Dryopteris carthusiana	*Polystichum lonchitis*
Dryopteris dilatata	*Polystichum munitum*
Dryopteris expansa	*Polystichum setiferum*
Dryopteris goldiana	*Woodsia ilvensis*
Dryopteris oreades	

Glen Esk, Angus – 3 July

Frank McGavigan

(*Participants:* John Edgington, Roland Ennos, Tim Godfrey, Yvonne Golding, Bridget Laue, Frank & Linda McGavigan, Paul Sharp, Leslie Tucker.)

Glen Esk, being a *cul de sac*, is seldom visited except by those who know its attractions. John Edgington has been coming for years and now owns a property there; he had invited us for a day's ferning to be followed by tea – who could resist such an offer? John knows his territory and was able to take us to fern sites that we would never have found 'on spec'.

Our first stop was just south of the glen itself at Gannochy Bridge (37/600708). Down a path by the river grows a curious form of *Asplenium adiantum-nigrum* (it is known to be a very variable species). In the surrounding woods there were, not surprisingly, *Athyrium filix-femina*, *Dryopteris borreri*, *D. dilatata*, *D. filix-mas*, and, in the trees, *Polypodium vulgare*. Near an old mill there was *Polystichum aculeatum* and, in a nearby garden wall, *Asplenium trichomanes* subsp. *quadrivalens*. And we had only just begun the day.

Well up the glen at Tarfside (37/491797) we stopped to admire a patch of *Equisetum palustre* and also recorded *Athyrium filix-femina*, *Blechnum spicant*, *Dryopteris affinis*, *D. borreri*, *D. dilatata* and *Pteridium aquilinum* in a little piece of woodland to the north of the village.

Then it was on to the main purpose of the day – a walk along the length of Loch Lee at the end of the glen. On the bridge over the River Mark John pointed out a single plant of *Asplenium scolopendrium*, a rarity in these parts. We stopped at the old Invermark kirk to examine the *A. adiantum-nigrum* on its walls. We admired the *Helianthemum* (a lime lover) flowering profusely at the base of the scree that we later scrambled up to find *Cryptogramma crispa* (a lime hater). In the loch itself *Equisetum fluviatile* was flourishing. Sitting down for lunch at the head of the loch we failed to notice the *E. sylvaticum* that John spotted nearby the following day.

photo: F. McGavigan

John Edgington examining *Cryptogramma crispa*
above Loch Lee, Angus

Behind the farm at Inchgrundle (37/410790) the hillside is streaked with basic flushes and proved to be a rich hunting ground: *Polystichum lonchitis* and *P. aculeatum*, *Asplenium viride* and *A. trichomanes* subsp. *quadrivalens*, *Gymnocarpium dryopteris*, *Phegopteris connectilis* and *Cystopteris fragilis*, *Blechnum spicant* and *Oreopteris limbosperma*, and finally *Huperzia selago* and the elusive *Selaginella selaginoides*. The following day John found *Dryopteris expansa* higher up the hill (and also back by the loch side *Isoetes lacustris*), so all in all a good place for ferns and their 'allies'. (Not only ferns, for we spotted an osprey flying over the loch.)

Back at John's cottage the promised tea was everything we could have hoped for and we sat around for some time, reluctant to leave. But John had one last treat in store for us – close-by, at the edge of the road, was *Dryopteris carthusiana* next to *D. dilatata* and what looked very like the hybrid between the two, *D.* × *deweveri*. I used to think that the east of Scotland suffered from a dearth of ferns – not any more!

Dunkeld, Perthshire – 14 August **Frank McGavigan**

(*Participants:* John Edgington, Alistair Godfrey, Tim Godfrey, Bridget Laue, Frank McGavigan, Chris Nicholson, Paul Sharp and several members of the Perthshire Society of Natural Science.)

Alistair Godfrey, the VCR (BSBI Vice-county Recorder) for Mid-Perth, had kindly offered to lead this joint meeting with the Perth Society of Natural Science. Perhaps he had an ulterior motive, for the latest edition of Stace has recognised the split into three separate species of *Dryopteris affinis*, *D. borreri* and *D. cambrensis*, and he and the other PSNS botanists were keen to learn the differences. Embarrassingly, we BPS members were not much help, for, although the available guides are clear enough on paper, distinguishing in the field is a different matter and we quickly realised how ignorant we were.

We began the day at The Hermitage, a well known local beauty spot, which is also "good for ferns". (For those travelling north it is just beyond Dunkeld off the A9 at 37/015422.) Here we definitely noted *Dryopteris filix-mas*, *D. affinis* and *D. borreri*, but what were those that did not even display the famous black spot? *D. cambrensis*, perhaps. We were much more certain about the more familiar ferns:- *Athyrium filix-femina*, *Blechnum spicant*, *Cystopteris fragilis*, *D. dilatata*, *Gymnocarpium dryopteris*, *Phegopteris connectilis*,

Oreopteris limbosperma, the ubiquitous *Pteridium aquilinum*, and the always beautiful *Polystichum aculeatum*.

In the shallow caves under Hermitage Bridge we searched for some time for the gametophytes of *Trichomanes speciosum* recorded here in the recent past, but to no avail. There was nothing that we could even remotely wish into being Killarney fern and we wondered how these gametophytes could have disappeared when they seem so persistent elsewhere. However, we did see on the bridge *A. trichomanes* subsp. *quadrivalens*, a fern whose attractiveness would be remarked upon more if it was not so common.

In the afternoon we moved to Birnam Glen, which we approached from the north, leaving our cars at 37/031418 and passing under the main road and railway on foot. The fern flora is, unsurprisingly, much the same as at The Hermitage. Again we wondered over the various members of the *D. affinis* agg., and again we BPS members were embarrassed by our lack of knowledge. The problem, as I see it, is that we need to learn the morphology of not just the three new species but of all the subspecies and hybrids as well if we are going to identify confidently in the field. Otherwise we will need to record everything as *D. affinis* agg., but I have a feeling this will not satisfy VCRs now that the split into three species is 'official'.

A similar problem arises with *Polypodium vulgare*. I confidently pronounced that some examples we saw, that looked and felt like *P. vulgare*, could well have been *P. interjectum*, mainly because the new fronds were flushing late and the wall where they were growing could have been lime-mortared. Needless to say, later microscopic examination proved them to be *P. vulgare*. The wall was not mortared and the late flushing in the deep shade of a wooded glen this far north would be perfectly normal. (Memo to self: keep big mouth shut till sure of facts.)

The elusive *Woodsia alpina*, Ben Lui, Perthshire/Argyll – 11 September

Frank McGavigan

(*Participants:* John Edgington, Tim Godfrey, Stephen Longster, Frank McGavigan, Andy McGregor, Heather McHaffie, Douglas McKean, Jamie Taggart.)

Ben Lui is a magnificent mountain that straddles the border between Perthshire and Argyll. The north side is rich in botanical interest mainly due to outcrops of limestone schist, ideal territory for *Woodsia alpina*. Indeed there are four well-documented sites with several clumps at each. Our aim for the day was to monitor two of these sites (at 27/272271 and 27/270271) and add our findings to the database held by SNH (Scottish Natural Heritage) who look after the area.

We failed. Pathetic, really. We could not even find the sites, despite having been there before and despite having detailed maps and photographs. The problem was that the north face consists of a series of broad ledges separated by precipitous cliffs and with only a few safe ways between the ledges. We made the mistake of climbing too high initially and then passing above the sites as we traversed from east to west. By the time we managed to descend to the correct altitude it was too late to go hunting for *Woodsia*.

However, it was not a wasted day, for between us we notched up an impressive list of ferns and lycophytes. *Polystichum lonchitis* and *Asplenium viride* were too numerous to count, but hugely satisfying to find among more commonly seen ferns, such as *Asplenium trichomanes* subsp. *quadrivalens*, *Athyrium filix-femina*, *Cystopteris fragilis*, *Dryopteris affinis* agg., *D. dilatata*, *D. filix-mas*, *Hymenophyllum wilsonii*, *Phegopteris connectilis*, *Polypodium vulgare* agg., and *Oreopteris limbosperma*. Of clubmosses we noted *Huperzia selago*, *Lycopodium clavatum* and *Diphasiastrum alpinum*, and of horsetails *Equisetum palustre*, *E. pratense* and *E. sylvaticum*. But the highlight of the day was when Heather found *Cystopteris montana*, a little past its best but still the most attractive fern in the British Isles. So, a hugely successful outing after all.

Glasgow – 'Let 'agg.' reduce the agony!' – 9 October

Alastair Wardlaw

(*Participants*: Adrian Dyer, Frank Katzer, Bridget Laue, Frank McGavigan, Christine Nicholson, Paul Sharp, Alastair Wardlaw, Maurice Wilkins.)

"Let 'agg.' reduce the agony!" was the conclusion reached by those at the end-of-season meeting of the BPS Scotland Group at the home of Frank and Linda McGavigan in Lenzie, Glasgow. We had a long discussion on the perennial question of field identifying the subdivisions (and the sub-subdivisions) of *Dryopteris affinis* agg. There is now some urgency since the BSBI wants recorders to distinguish *D. affinis sensu strictu* from *D. borreri* and *D. cambrensis*. There was general sympathy and respect for the dedicated work of the several BPS members who over the years have taken the lead as *affinis*-investigators. But there seem to be relatively few otherwise competent ferners with the extraordinarily discriminating eyesight needed to do *affinis*-splitting reliably and convincingly. Adrian Dyer emphasised that when recording an *affinis*-type find, it is much better to play safe by using '*D. affinis* agg.' unless one is absolutely sure about the further subdividing.

Taking refuge in 'agg.' may also be useful on occasion with *Polypodium* and the subdivisions of the classic *P. vulgare* agg. into *P. vulgare*, *P. cambricum*, *P. interjectum* and their three hybrids; also *Asplenium trichomanes* agg. and its splitting into subspp. *trichomanes*, *quadrivalens* and *pachyrachis*. Overall, the use of 'agg.' may avoid indecision, wrong identification and unproductive agony.

Our discussions were followed by booksales organised by Frank Katzer and an excellent lunch provided by Linda McGavigan. There was then a fern-swapping session, followed by a tour of the McGavigan garden. It contained much of interest, both with ferns and herbaceous plants. Just to mention a few: *Asplenium ceterach* had been provided with a sheltered wall so suitable that an initial planting had spread into several clumps by spores; *Dryopteris cristata*, despite its wild habitat being restricted to fens and bogs, was growing happily in an area of damp, shady woodland; and *Polystichum lonchitis*, with its crown sheltered under a rock, had an admirable display of leathery fronds. Among the foreigners, *Dryopteris goldiana* and *Onoclea sensibilis* seemed to be doing at least as well as they would in eastern USA. The meeting was rounded off by a most refreshing tea.

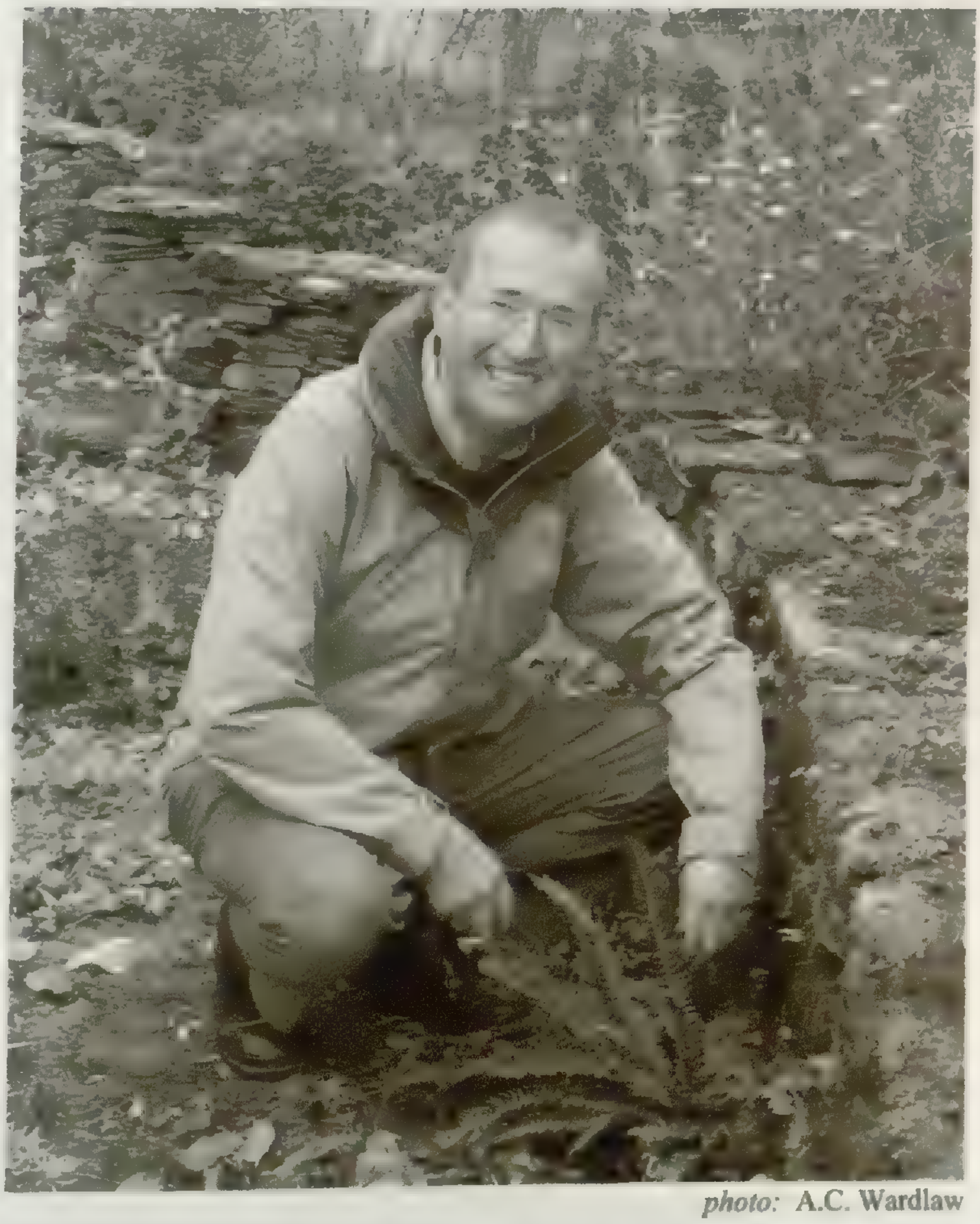


photo: A.C. Wardlaw

Frank McGavigan with a well grown *Polystichum lonchitis* in his garden

SOUTH WALES AND THE BORDERS

In this the Group's second year we held three meetings, again seeking to admix field trips and garden visits.

Titterstone Clee Hill & Teme Valley Woods, east of Ludlow, Shropshire – 4 August

Brian Dockerill

Fourteen members met at the Burford Garden Centre from where we shared cars to travel to a woodland site in the Teme Valley at 32/582682. In this location we were not expecting to see rarities, but rather a profusion of the commoner ferns of alkaline woodland and in this we were not disappointed. *Asplenium scolopendrium* was abundant on the streamside slopes, as were *Polystichum aculeatum* and *P. setiferum.* Having both plants side by side gave some of our newer members an ideal opportunity to confirm their identification of the two species while others discussed, and finally agreed upon, the identity of a plant of the hybrid, *P.* × *bicknellii.* Also found were *Polypodium vulgare*, *Dryopteris borreri*, *D. dilatata*, and *D. filix-mas*, along with a single plant of *Pteridium aquilinum*.

After a return to the garden centre and a lunchtime stroll in the adjacent garden of the late John Treasure, we set off for Titterstone Clee Hill (32/593777), the highest point in Shropshire, and the venue for part of a BPS National Field Meeting in the Hereford/Shropshire borders in 2004. Our plan for the day was based on the morning forecast for improving weather, a requirement for a scramble on the hill-top screes, and we were rewarded by intermittent sunshine. Not only was the location in complete contrast to the morning, but the views from the hilltop were extensive – some time was spent pointing out the various landmarks, and also we anticipated seeing some comparative rarities. We first stopped at a known site for *Botrychium lunaria* where the more keen-eyed members quickly spotted the first plants and in all around ten were found. The climb up the hillside yielded *Athyrium filix-femina*, *Blechnum spicant*, *Dryopteris dilatata*, *D. filix-mas*, and some much sheep nibbled *D. affinis* agg. One of our principal targets was *Cryptogramma crispa*, a single plant of which was found among the summit screes near the remains of the hill fort. Travelling southward across the scree we found *Gymnocarpium dryopteris*, *Phegopteris connectilis*, and some fine colonies of *Huperzia selago* as well as *Polypodium vulgare*. Members on the 2004 visit had found a number of plants of *Dryopteris oreades* but on this occasion only one was seen. However, we were delighted when two further colonies of *Cryptogramma crispa* were recorded along with further plants of *Huperzia selago.* The visit was rounded off by a report of *Asplenium ruta-muraria* on the brick-built ruins of the former quarry and a stop to see *Equisetum* × *litorale* by the lane.

We were fortunate to complete our day by joining Martin Rickard at his house for tea, cakes and a tour of his garden. The full range of fern-related materials was there to be seen: the bibliophiles descended on his bookcases, while others studied furniture, ceramics and even embroidery. Despite his previous difficulties with weevils ('Fern deaths', *Pteridologist* Vol. 5, part 3 p.175) the *Polypodium* collection was looking stunning and was punctuated by many other rarities, the identity and provenance of which Martin kindly explained to us. All in all this was an excellent end to a fine start to our year's programme.

Ivycroft, Leominster, Herefordshire & Madresfield Court, Malvern, Worcestershire – Tuesday 21 September

Sue Dockerill

It was a suitably misty and autumnal day when 11 members assembled at Ivycroft, the garden of Sue and Roger Norman near Leominster (22/465562). After a welcoming cup of tea and cake, we set off around the outside of the house. We were soon discussing three of the many *Polypodium* varieties that we were to see over this visit and admiring several large forms of *Dryopteris filix-mas*, believed to be over 20 years old and looking very handsome. In an area shaded by a large crab apple, there were three troughs where more challenging

alpine ferns were growing, including *Woodsia polystichoides* and *W. intermedia*, which allowed these two very similar species to be compared. Further round the house, more polypodiums were admired, including beautiful clumps of *P. cambricum* 'Pulcherrimum Trippitt', 'Semilacerum Falcatum O'Kelly' and a particularly large patch of 'Richard Kayse'. There were also polypodiums in the vegetable plot under a large medlar tree and in raised beds to the north of an old hedge. There were too many varieties to list them all, but, in addition to the *P. cambricum* varieties mentioned above, *P. glycyrrhiza* and its variety 'Longicaudatum' and *P. vulgare* 'Trichomanoides Backhouse' were notable.

But this garden has many ferns other than polypodiums (and indeed a lot more than ferns). In a small area with brick-edged raised beds a striking stand of *Phegopteris hexagonoptera* was widely admired, looking like a beech fern on steroids, and in the conservatory several unusual tree ferns were growing well. With them was a dead tree-fern trunk loaded with around half a dozen species of ferns, presumably imported as spores with the trunk. While we were exploring this lovely garden, the sun was slowly coming out and we were able to enjoy our packed lunches in its warmth.

We had allowed three hours for this part of the visit, but, with so much to see, we left slightly behind schedule for our afternoon visit to Madresfield Court near Malvern (32/808475). Our main area of interest was the Victorian rock garden constructed by James Pulham between 1877 and 1879. It was built using the synthetic rock known as Pulhamite, which was very popular at that time and allows large but very realistic structures to be formed. Although most of the ferns were in pockets in these rocks, they were obviously designed very well as the conditions seemed to really suit them. A very large *Osmunda regalis* was from the original planting scheme, but most ferns had been replanted by Angela Tandy of Fibrex Nursery about eight years ago and were looking very happy indeed. In keeping with the Victorian theme, most were varieties of British natives, but there were also some foreign *Polystichum* and *Cyrtomium* species, which blended in well.

At the end of a most enjoyable day, our thanks went to Angela for arranging such an interesting afternoon for us and to Sue and Roger for making us so welcome in the morning.

Nash Point, Vale of Glamorgan, & Kidwelly & Dryslwyn, Carmarthenshire – 3 November

Susan Lewis

On a beautiful morning twelve members assembled in the beach car park at Atlantic College, St Donats. The objective for the morning was to see *Adiantum capillus-veneris* growing on the sea-cliffs, but first we hoped to be shown a plant growing in the college garden, which was thought to have spread from the colony on the cliffs. Unfortunately our guide was detained, so we departed for nearby Nash Point (31/915683). Descending to the beach involved negotiating a steep grassy slope and a stretch of loose boulders to reach an area of natural rocky pavement with pools and many fossils. Following a short walk eastward along the beach, we were rewarded with the sight of extensive colonies of *A. capillus-veneris*, unfortunately too high up the cliff to see clearly without binoculars. The site appeared quite exposed and looked rather inhospitable for ferns, especially maidenhairs; however, water could be seen continuously seeping from the cliff-face, in some places over tufa-like excrescences. Most of the plants looked very shrivelled and battered apart from some in shaded overhung positions. *Asplenium marinum* also grew here and there on the cliff. The cliff between the two lighthouses where most of the ferns were growing had been reinforced, presumably to stop the lighthouses falling onto the beach, and it was suggested that the reduced rock fall here had made it easier for the ferns to establish. We regained the car park and set off for Kidwelly, about 55 miles to the west.

It rained all the way there, but considerately stopped once we had eaten our sandwiches in the Kidwelly Castle car park (22/409071). On a nearby garden wall grew a luxuriant stand of

Polypodium cambricum, with several smaller plants nearby. Some also grew on the outer castle wall. A magnificent clump of polypody on a chimney next to the car park was too high up for us to identify it. Martin Rickard thought it was probably *P. cambricum*. After lunch we got back in the cars to go to see the highlight of the day: *Trichomanes speciosum* sporophytes! To see these well it was necessary to stand in a stream; the two clumps of ferns were growing on the banks over the water and were very impressive. However, Martin wondered how long the colony would persist, as it seemed to have diminished significantly since he saw it six years ago. The trees growing over the stream were festooned with *Polypodium vulgare*. The road alongside had a lush growth of the usual West Wales hedgerow assortment, but there was not time to stop and list them, or to discuss the *Dryopteris affinis* complex, as we then set off for Dryslwyn Castle (22/555204).

photo: J.P. Crowe

***Trichomanes speciosum* in Carmarthenshire**

The castle is perched on a twmp on the south bank of the Tywi between Llandeilo and Carmarthen. We did not climb up to the castle, but were shown two large clumps of *Polypodium* × *shivasiae* on a wall by the road. Martin thought they were originally one plant and that something had happened to the middle portion. One of the parents, *P. cambricum*, was growing higher up the wall, and the other, *P. interjectum*, a few yards further along, but neither was as extensive or luxuriant as their offspring. Martin had previously found a true *Asplenium scolopendrium* 'Crispum' growing here at the base of the wall among nettles, and was hoping to find another. He had no luck; there were several attractively wavy *A. scolopendrium* and plenty of nettles, but no crispums. The light was beginning to deteriorate by now, and the party dispersed.

MANCHESTER AND NORTH MIDLANDS

National Biodiversity Day, Sheffield Botanical Gardens – 22 May Yvonne Golding

2010 was Biodiversity Year and you may have noticed activities such as BioBlitzes happening in your area. On a very wet summer day I took part in one at Whitworth Park in Manchester, which sadly was not particularly fern-rich, though other groups were surprisingly diverse. Conversely, Sheffield Botanical Gardens are very fern-rich with a good collection of exotics in the restored Pavilion and a new fern garden. On a scorching day the BPS had a presence here to help celebrate

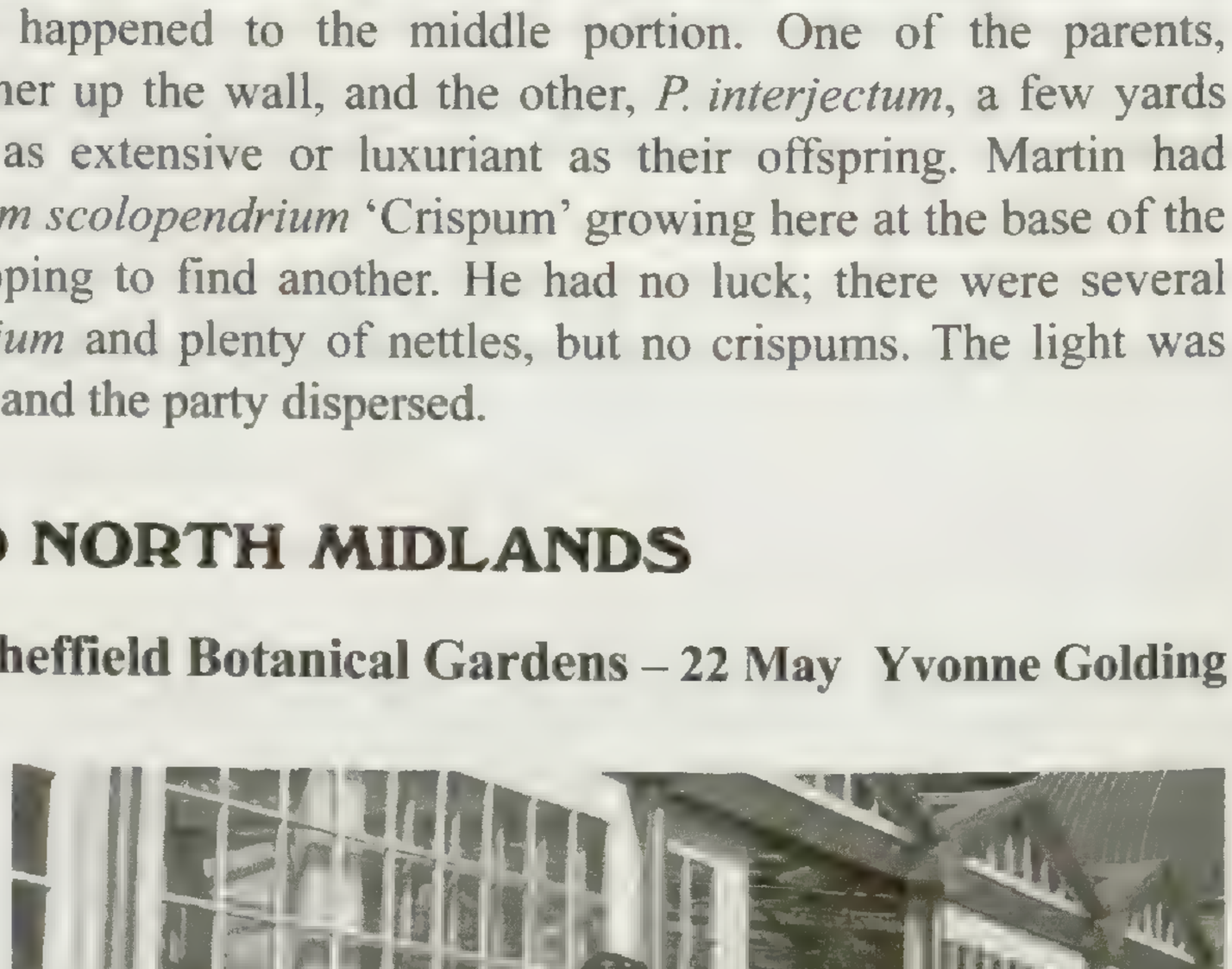


photo: Y. Golding

Roland Ennos at Sheffield Botanical Gardens

National Biodiversity Day. Roland Ennos and Yvonne Golding manned a stand festooned with interesting ferns, supported by our BPS education material. There were many enquiries about ferns in general but mostly people wanted to buy them! In the Pavilion we displayed our posters and leaflets along with some fine photos of ferns and horsetails. Visitors were able to see dancing *Equisetum* spores, experience the water-repelling powers of *Lycopodium* powder, find out all about the fern life-cycle and see spore release on a screen attached to a microscope. This was ably demonstrated by Ziggy Senkans and Julie Westfold who work as Sheffield Ecologists. At lunchtime, Julie, who is also a BPS member, took a large group of enthusiastic visitors on a fern walk around the gardens. It was a really enjoyable day and a good opportunity to promote fern diversity and the BPS.

photo: Y. Golding

Ziggy Senkans demonstrates the fern life-cycle at Sheffield Botanical Gardens

Chorlton Meadows, Manchester – 29 May — Dave Bishop

The rivers Goyt and Tame merge under Stockport town centre. The resulting river Mersey then flows westward, through the southern suburbs of the Greater Manchester conurbation, eventually entering the Manchester Ship Canal near Carrington. Although much of the river is now heavily canalised it still occupies a prudently wide floodplain. Over the course of the twentieth century this floodplain was converted from ancient flood meadows and grazing land to refuse tips, sewage works, golf courses and playing fields. From the late 1970s onwards some of the worst dereliction was cleaned up, thousands of trees were planted and the resulting areas opened up to the local population for informal recreation under the heading of 'The Mersey Valley'. This area, with its complex history and its equally complex soils and substrates, has a surprisingly rich flora. For some, as yet unexplained, reason the area adjacent to the Manchester suburb of Chorlton-cum-Hardy has the richest pteridophyte flora and some 24 species have been found between Chorlton Water Park in the east and the Stretford border in the west – a distance of approximately two miles.

On a wet Saturday in May four members of the Society (Yvonne Golding, Roland Ennos, Michael Hayward and Dave Bishop) and three guests (Charlotte Abbas, Katherine Miller and David Rydeheard) set off from Chorlton Water Park with the intention of seeing as many of these species as possible. First we negotiated a narrow, sunken lane at the rear of the Water Park and bordering Chorlton Golf Course. Here we encountered *Dryopteris filix-mas* and a luxuriant specimen of *D. affinis* agg. We then moved on to the inelegantly named Barlow Eye Tip (33/815920) – once a landfill site but now a Site of Biological Importance (SBI). Here we found three species of horsetail: the ubiquitous *Equisetum arvense*, *E. fluviatile* and *E. telmateia*. The last species is interesting because in Manchester Museum Herbarium there are specimens of it that were collected from a site nearby in the mid-nineteenth century. The present colony is on the very edge of the site and may have survived all of the various upheavals that have occurred around it.

Moving further westward along the river bank we came to another SBI known as Lower Hardy Farm (33/812924). Here, deep in a birch and willow copse, was a magnificent stand of *Osmunda regalis*. Unfortunately, there is a plan to drive a spur of the Metrolink tram system through this SBI and across the river to Manchester Airport. Various exploratory

drilling operations were conducted here recently and the *Osmunda* plants came within a whisker of being destroyed.

We then inspected the walls of the Withington Sewage Works Pumping Station (which is in Chorlton, not Withington!) Here were found *Polypodium interjectum*, *Asplenium scolopendrium*, *A. trichomanes* subsp. *quadrivalens* and, most surprisingly, *A. ceterach*. Unfortunately, the spring of 2010 had been exceptionally dry (in contrast to the day of our walk!) and many of these ferns were somewhat shrivelled.

In a wet area at the back of a nearby Primary School we found our fourth horsetail – *E. palustre*. Then a single specimen of *Blechnum spicant* (a rare species locally) was seen clinging to the steep bank of Chorlton Brook. By this time, lunch at a local pub beckoned – but not before we had seen *Asplenium adiantum-nigrum* and *A. ruta-muraria* on the wall of the old St Clement's churchyard. In the pub I was able to show the group a frond of *Polypodium vulgare* that I had gathered the day before from a site somewhat off our line of march.

After lunch we made our way towards the Chorlton Ees SBI (33/805932). Passing through a strip of woodland we saw a specimen of *Polystichum setiferum* with rather deeply cut fronds. About 20 years ago I was told that this species was believed to be extinct in Greater Manchester – but evidently not, because since that time it has turned up in several other places. In the midst of a derelict hay meadow on Chorlton Ees we saw a large and impressive colony of *Ophioglossum vulgatum*. This species was reported from this area by Richard Buxton in his flora of 1849 and by Leo Grindon in his flora of 1859, and was then thought to have been lost until it was refound in 1995. We also spotted *Athyrium filix-femina* in the course of our travels and finally, in a patch of birch woodland on the edge of the SBI, we saw *Dryopteris dilatata*, *D. carthusiana* and more *D. affinis*.

Challenges for the future are to look for *Equisetum* and *Dryopteris* hybrids (particularly *D.* × *deweveri*). And it would be good to know how many taxa we have within the *D. affinis* aggregate.

Deep Dale, north-west of Bakewell, Derbyshire – 26 June **Yvonne Golding**

Deep Dale is a magnificent limestone valley located in the heart of the Peak District National Park (43/165698). It is a Plantlife reserve designated as both a Site of Special Scientific Interest (SSSI) and a candidate Special Area of Conservation (SAC). The dale sides are steeply sloping and are rich in wild flowers.

On a lovely day in late June, nine BPS members met to explore the area for ferns. We quickly came across fine stands of brittle bladder fern (*Cystopteris fragilis*) lining the shady approach to the dale. Other limestone ferns – hart's tongue (*Asplenium scolopendrium*), western polypody (*Polypodium interjectum*), wall rue (*Asplenium ruta-muraria*) and maidenhair spleenwort (*A. trichomanes* subsp. *quadrivalens*) – were common growing on the limestone crags, and in small pockets of wooded scrub we found male fern (*Dryopteris filix-mas*) and broad buckler fern (*D. dilatata*). One of these scrub areas in the dale yielded a large colony of limestone oak fern (*Gymnocarpium robertianum*), which extended into an open area of scree interspersed with lily of the valley (*Convallaria majalis*). It was interesting to see this fern growing in adjacent shaded and open areas. A steep walk up the side of the dale was rewarded with areas of blue columbine (*Aquilegia vulgaris*) and at the top of the dale, the last plants of moonwort (*Botrychium lunaria*). This hillside looked particularly beautiful with a fine stand of mountain pansy (*Viola lutea*) and spring sandwort (*Minuartia rubella*).

After lunch we crossed the A6 and walked along the Monsal Valley where we had some frightening moments when confronted with a herd of horned cattle on the narrow riverside path. They were clearly not going to give way as one head butted me but luckily I put my arm up and only sustained a bruise. Elise came to the rescue with her stick! Further down the river

photo: C. Evans

Deep Dale, Derbyshire

Chris & Alison Evans, Paul Ruston, Ann Haskins, Pamela Simpson, Yvonne Golding, Elise Knox-Thomas, Roland Ennos, John Grue

Alison and Paul had to rescue a lady who had actually fallen into the river to avoid the cattle. Once composed we crossed the river and made our way up to our final destination of Hob's House below the hill fort of Fin Cop (43/175713). This is a limestone fissure around 80 feet long at an altitude of 800 feet. It is an ancient site where an early British skeleton was found but there has never been any excavation. Legend has it that Hob was a giant who emerged at night to thresh the corn of local farmers who rewarded him with a bowl of cream. Our task was to try and refind the black spleenwort (*Asplenium adiantum-nigrum*) that I had found there in 2008. Unfortunately it had disappeared although there was still plenty of *A. ruta-muraria*, *A. scolopendrium*, *A. trichomanes* subsp. *quadrivalens* and *Cystopteris fragilis* growing in the rock fissures. In addition, there were large stands of *Polypodium interjectum* growing on top of the rocks. The site was also of interest because of the two species of fossil coral, the superb views of the Monsal viaduct and the magnificent stand of native Jacob's ladder (*Polemonium caeruleum*). On the way back along the wooded path we saw *Dryopteris dilatata*, *D. filix-mas*, and *Equisetum arvense* growing in a ditch.

Some of us then retreated to Buxton and had tea in my garden where we admired more ferns!

Tissington Trail & Bradford Dale, west of Matlock, Derbyshire – 31 July

Yvonne Golding

The Tissington Trail runs along a 13 mile route from Ashbourne to Parsley Hay. The trail was originally the track bed of the Buxton to Ashbourne railway line, built by the LNWR and opened in 1899. In its heyday, it carried express trains from Manchester to London and until after the Second World War a daily train delivered milk from Peak District farms to Finsbury Park, London. Now it is a most idyllic footpath and cycleway through scenic Derbyshire countryside. It is of particular interest to botanists because of the limestone flora, which is easily seen along the cuttings and of extreme interest for pteridologists as it is one of only two sites in Derbyshire where the rare *Dryopteris submontana* can be found. This site, which is near Biggin (43/161578), was visited by a BPS group in 1997 led by Trevor Taylor (see *Bulletin* 5(2):51). In 1997 there were 11 healthy clumps and in 2010 I am happy to report that the colony is increasing; we counted 15 clumps or plants on the east side of the cutting and one plant on the west side. In addition, we saw many healthy clumps of *Asplenium adiantum-nigrum*, *A. ruta-muraria* and *A. trichomanes* subsp. *quadrivalens*, with just a few plants of *A. scolopendrium*. At the base of the cuttings we found *Dryopteris borreri*, *D. dilatata*, *D. filix-mas* and a plant of *D. affinis* agg. that we couldn't identify, possibly *D. cambrensis*. After carefully mapping the *D. submontana* we walked further

down the trail to see some very fine erect specimens of *Polystichum aculeatum* growing on the east side of the cutting in full sun. We then retraced out steps, stopping to admire a fine stand of twayblade (*Listera ovata*) before heading to The Waterloo Inn at Biggin.

After lunch we drove a short distance to the charming village of Middleton-by-Youlgrave. From here we walked through damp woodland with mossy limestone outcrops covered in prolific *Asplenium scolopendrium*, *Cystopteris fragilis* and *Polystichum aculeatum* down to little-known Bradford Dale (43/198633). We visited three odd-looking plants of *Polystichum setiferum* that I had found the previous year. Further down the path an old mill and the surrounding walls were covered in *Asplenium ruta-muraria*, *A. trichomanes* subsp. *quadrivalens* and *Polypodium interjectum*. We walked along the river in an easterly direction, noticing many *Polypodium* plants growing along a dry-stone wall and covering a large boulder; these warrant further investigation. We then turned north and walked along the river in the other direction where we saw many more large and fine specimens of *Polystichum aculeatum* growing along the valley side and all the lime-stone ferns we had previously seen growing in profusion on a stone bridge over the Bradford river. We walked up through the woodland seeing more *Polystichum aculeatum*, *Dryopteris dilatata*, *D. filix-mas* and *Athyrium filix-femina*.

photo: R. Ennos

On the bridge over the River Bradford

Ann Haskins, Paul Ruston, Chris Evans, Yvonne Golding, Robert Sykes, Elise Knox-Thomas, Alison Evans

It was then back to Buxton for tea! Thanks very much to our participants who all helped with this detailed survey.

Cheshire woods east of Macclesfield – 21 August

Yvonne Golding

Teggsnose Wood (33/945718) is species-rich semi-natural Pennine fringe woodland managed by Cheshire Countryside Management, together with a long-established woodland pasture grazed by Bollin Valley Project Longhorn cattle. The damp wood is on a steep slope and dominated by oak, ash, beech and alder, with birch and rowans around the fringe. Ferns found in the woodland included *Dryopteris filix-mas*, *D. dilatata*, *D. borreri*, *Athyrium filix-femina*, *Blechnum spicant* and *Equisetum telmateia*, with *Oreopteris limbosperma* along the stream edge and occasional plants of *Asplenium scolopendrium*. We found a large upright plant that we suspected could be *D.* × *deweveri* but in the absence of *D. carthusiana* we classified it as a large specimen of *D. dilatata*. Around the woodland fringe there were stands of *Pteridium aquilinum* and *Equisetum arvense*.

After lunch and a pint of 'White Nancy' at the excellent Vale Inn, an independent brewery pub in Bollington, we moved on to Ingersley Vale where we explored **Waulkmill Wood** (33/943769) so named after the ruined Waulk Mill, which was originally used for fulling cloth – water power drove large mallets, which pounded the woven cloth to wash and soften it. The wood is managed by the Woodland Trust and is sited on a steep slope on the Kerridge Ridge in east Cheshire on the edge of the Peak District National Park. As we approached the wood,

the walls were rich in *Asplenium scolopendrium*, *A. trichomanes* subsp. *quadrivalens*, *A. ruta-muraria*, and a fine large-fronded *Polypodium* most likely to be *P. interjectum* but it was sent for identification. The wood, though very ferny, was dominated by only a few species: *D. filix-mas*, *D. dilatata* and *A. filix-femina*. In addition there was a colony of eight or nine large clumps of *Blechnum spicant* on a steep slope. We emerged from the wood and walked to the top of the hill along an ancient pannier way where we were rewarded with fine views over the Cheshire countryside.

photo: Y. Golding

On ancient pannier way above Waulkmill Wood, Cheshire

Quentin Alder, Sarah Whittingham, Ann Haskins, Roland Ennos, Jenny Martin, Dave Bishop

At the end of the day we were invited to Jenny and Paul Martin's fine garden. Jenny is developing a diverse fern garden and Paul showed us his fine collection of *Streptocarpus* as well as his extensive plot with unusual plants. We were treated to Jenny's superb home-made cake!

Indoor Meeting, Manchester – 23 October

Yvonne Golding

Twelve BPS members attended the second indoor meeting of the Manchester Group at The Firs, University of Manchester. We began in traditional style with coffee and cake, after which Yvonne Golding gave an illustrated report on 'Fern hunting in China', describing the recent BPS reconnaissance trip to Yunnan Province. Over 240 species were seen on this trip so only half the expedition was covered; the rest is promised for another occasion. Before lunch we had a tour around the fern collection, stopping to admire the changing colours of the *Osmunda* in Barbara Porter's fern bed, which has come on very well since being planted two years previously. As usual, members drooled over the *Leptopteris* in the moss house and the particularly fine *Drynaria* specimens in the range. Alison Evans had brought a collection of ferns from Ken Trewren's garden, which was sold in aid of the Macmillan Cancer Support charity.

After lunch, Pam Simpson showed photos of some fine ferns encountered on her regular trips to Haiti where she works as a missionary. Michael Hayward gave us an illustrated talk (aided by a very large frond!) about difficulties in the Marattiaceae. Lizzie Evans introduced herself as our new Publicity Officer and took us through the various strands of communication she has established to help raise the profile of the BPS. Finally we reflected on what we had achieved as a group during our first year, and Yvonne reported back on our *Dryopteris submontana* (now *D. mindshelkensis*) monitoring; the colony now has 16 healthy clumps or plants, which is a significant increase since the site was last visited by BPS members in 1997. In 2011 we plan to monitor the other Derbyshire site for this species.

All in all we thought it had been a good first year and we are encouraged to continue in 2011 with the prospect of an early joint meeting with The Yorkshire Group to tackle *Polypodium* identification.

Group of European Pteridologists (GEP) Excursion

Südtyrol, Italy – 3-7 August

Pat Acock

Twenty-six pteridologists assembled at the Hotel Wieser in this German-speaking part of Italy. Our hosts were Reinhold and Hilde Beck, who each knew this area very well and were able to tell us something of its history, geology and flora, especially on the three days that we used the bus to travel.

Tuesday found us in the Geoparc within the Bletterbach Gorge near Aldein where our host for the day, Benno Baumgarten, introduced us to the significance for Palaeobotany of the underlying Triassic/Permian boundary. The horsetails growing in profusion allowed much discussion about hybrids. At Regenstein we saw *Adiantum capillus-veneris* on calcareous tufa, with *Equisetum telmateia* and *E. arvense* growing nearby. On the way home we visited an unusual wood where large rocks had fallen from the glaciated cliff, forming a shoulder where the winter's cold air is 'stored' in cavernous hollows and flows slowly out into the wood during the summer.

On Wednesday we explored the beautiful Ridnaum Valley where we were promised 25 ferns. I managed to find 23 including *Asplenium septentrionale*, *A. viride*, *Athyrium distentifolium*, *Cystopteris regia* and *Cryptogramma crispa.* The *Cryptogramma* was growing in amongst grasses and other herbaceous plants, unlike in Britain where it tends to grow in isolation on acidic screes. A refuge serving hot food and drinks was a useful meeting place. We used cars on this day so most people went their own way around the paths, having the freedom to return when they liked.

It was fortunate that Reinhold and Hilde had arranged a little auto-ferning on Thursday as it was very wet. In a break in the rain we went to Unterinnerhof. In *Quercus pubescens* woodland on a trail to Signat we saw *Asplenium septentrionale*, *A.* × *alternifolium* (*A. septentrionale* × *A. trichomanes* subsp. *trichomanes*) and *Notholaena marantae* on exposed igneous porphyry rocks. At a railway embankment near Siebeneich (Sevenoaks), we were shown *Equisetum ramosissimum* and *E.* × *moorei* (*E. hyemale* × *E. ramosissimum*). After lunch we climbed up the terraces above Algund in another short break in the rain. Along a levada-like water channel, the Algunder Wallweg, we were shown *Equisetum* × *meridionale* (*E. ramosissimum* × *E. variegatum*), known from here, the type site, since the nineteenth century. We dried off in the extremely modern church in Algund, a major tourist attraction due to its many stunning and symbolic features.

On Friday we were in the Puster Valley, where we searched the granodioritic rocks near Dieterheim for *Asplenium trichomanes* subspecies, finding subspp. *trichomanes* and *pachyrachis*. Lunch was at the well known tourist attraction of the earth pyramids or fairy chimneys. We spent the afternoon in the lower Kripps Valley south of St Virgil on dolomitic rocks where the star of the show was the extremely rare *Asplenium seelosii.*

On our last day we explored the montane and subalpine screes west of Pfundres, where among other alpine ferns we found *Woodsia alpina*. A very hardy seven climbed another 300 metres to find fewer ferns on the very much drier scorched screes; we might have found more ferns if time had allowed.

We must thank Reinhold and Hilde Beck for a very special well planned tour. In the evening many interesting discussions and exchanges of information took place and we were all kept entertained by Ronnie and Lien Viane's beautiful daughter, Feline.

If you are interested in joining the GEP annual excursion please contact Prof. Ronnie Viane, Research Group: Pteridology, Dept of Biology, Ghent University, K.L. Ledeganckstraat 35, B-9000 Ghent, Belgium. E-mail: Ronnie.Viane@UGent.be; Tel. & Fax: +32-9-2645057.

HORTICULTURAL SHOWS

BBC GARDENERS' WORLD LIVE, NEC, BIRMINGHAM – 16-20 June

Bryan & Gill Smith

photo: B.D. Smith

BPS stand at BBC Gardeners' World Live, NEC 2010

Alan Ogden, Roger Golding, Alison Evans, Bryan & Gill Smith, & Michael Hayward

We have fond memories of the BBC Gardeners' World Live NEC Shows – it was where we met Matt Busby and joined the BPS on his stand in 1997 and subsequently helped him for several years. So, following the success of the BPS stand at the RHS Tatton Park Show in 2009, an invitation from the RHS to have a stand at the NEC (after several years' break) was too good an opportunity to miss to promote the BPS and ferns.

We arrived on the Monday morning to our spot in the National Plant Societies area – a large empty floor space enclosed by screens on two sides. That afternoon, in next to no time a gang of men erected the three-tier plant display stand we had requested, and over the next two days, with help from Yvonne Golding and Roger Golding, we 'set out our stall' with ferns, promotional material and merchandise – all of which had to be carried in from outside the Hall. As you can imagine, setting up the BBC Gardeners' World Live and adjacent BBC Good Food Show takes an amazing effort, and it was fascinating to see around us how two large, empty NEC Halls were transformed with carpets, seating, displays, etc. in just a couple of days.

Over the show days (Wednesday to Sunday), we met lots of people, enthused about ferns and the benefits of joining the BPS and tried to solve people's fern problems (what, how and where). Michael Hayward's display on growing ferns from spores attracted a lot of interest, and a lot of people went off with packets of spores to 'have a go'. We managed to

recruit five new members, with several people considering buying membership later for birthday/Christmas gifts, and we got a 'Commended' certificate from the RHS for our display. We also got free advertising in the show guide, which was free to everyone; we had a good write-up and a photo of Gill admiring ferns.

Our thanks go to everyone who took it in turns to help on the stand – Yvonne Golding, Roger Golding, Tim Pyner, Martin Rickard, Alan Ogden, Pat Acock, Steve and Karen Munyard, Alison Evans, Ray and Brenda Smith, Michael Hayward and Matt Busby, and for those who loaned ferns for the display.

SOUTHPORT FLOWER SHOW – 19-22 August — Michael Hayward

The Societies Marquee at Southport took on a new look this year. The separate central displays of former years have been abandoned and all societies are now required to mount a three-metre-wide display comparable to those produced by the commercial exhibitors, with adjacent tables for society literature and merchandise. All of the stands are now judged for awards and despite this being our first attempt and being very uncertain just what facilities we would find when we arrived on site, we were very pleased to receive a silver-gilt medal.

Our display was set on two levels, with potted ferns on the upper tier and a bed planted with small specimens as a fern table in the centre of the lower tier. Society posters were mounted on the raised black background. The display provoked a considerable amount of interest and comment from the visitors. I was not surprised that a striking specimen of *Goniophlebium subauriculatum* 'Knightiae' caused much comment, but I was surprised that small specimens of *Asplenium scolopendrium* planted as 'fillers' in the fern table caused even more comment, usually starting with "I have one of those in my garden". Next year we will make sure we have a number of common species in the display, rather than crowding it with our prize specimens!

photo: M. Hayward

'The fern table' on the BPS stand, Southport Flower Show 2010

Having to use so many ferns to fill the Society display inevitably conflicts with the desire to participate in the competitive classes but in the event there were still a good number of entries. After many years of winning the BPS cup for the Individual Championship, Brian Russ was squeezed into second place by an excellent display from Yvonne Golding. Robert Sykes won the Happiland Trophy for the greatest number of first prizes apart from the Championship. The judge was Martin Rickard.

This year's winners of the competitive classes were:

Class 8 Individual Championship. Four hardy British Ferns (dissimilar), two Greenhouse Ferns (dissimilar) and two Foreign Ferns Hardy in Great Britain: 1st Y. Golding, 2nd B. Russ, 3rd R. Sykes (3 entries)

Class 9 One Foreign Fern Hardy in Great Britain: 1st R. Sykes, 2nd B. Russ, 3rd S. Manser (5 entries)

Class 10 One British Fern (any genus or variety): 1st V. Rimmer, 2nd M. Hayward, 3rd R. Sykes (6 entries)

Class 11 Three Hardy British Ferns (3 distinct species, not varieties): 1st R. Sykes (2 entries; 1 not as schedule)

Class 12 One Greenhouse Fern: 1st R. Sykes, 2nd M. Hayward, 3rd Y. Golding (3 entries)

Class 13 One *Asplenium scolopendrium*: 1st B. Russ, 2nd R. Sykes, 3rd Y. Golding (3 entries)

Class 14 One *Polypodium*: 1st Y. Golding, 2nd M. Hayward, 3rd B. Russ (4 entries)

Class 15 Three *Polystichum* (3 distinct varieties): 1st R. Sykes, 2nd Y. Golding (2 entries)

Class 16 Three *Athyrium* (3 distinct varieties): 1st Y. Golding, 2nd R. Sykes, 3rd S. Manser (3 entries)

Class 17 Three *Asplenium* excluding *A. scolopendrium* (3 distinct varieties and/or species): 1st Y. Golding, 2nd R. Sykes (2 entries)

Many thanks to Ruth Berry Piearce, Robert Crawford, Roland Ennos, Ann Gill, Yvonne Golding, Alec Greening, Joan Hindle, Trevor Piearce, Harvey Shepherd and Robert Sykes for manning the stand. We would welcome occasional visits from members from further afield to assist on the stand. Southport is a good stopping point on the way to visit the Lake District and sleep-overs can be arranged as necessary. The dates for next year's show are 18-21 August 2011.

THE AMERICAN FERN SOCIETY

The AFS invites all readers of this *Bulletin* to join the American Fern Society. You are welcome to visit the AFS website: amerfernsoc.org. Regular members receive *Fiddlehead Forum* five times a year, a newsletter published for those who are interested in growing ferns, hunting for them and expanding their knowledge of ferns. Journal members also receive the scientific quarterly *American Fern Journal*. Membership costs $19 and $32 per annum respectively for members residing outside USA, Canada or Mexico, including postage for airmail-assisted delivery. For particulars please write to Dr George Yatskievych, Missouri Botanical Garden, P.O. Box 299, St Louis, Missouri 63166-0299, USA (george.yatskievych@mobot.org). Online credit card payment is now available for the AFS via the AFS website.

AFS SUBSCRIPTION PAYMENTS: Our societies have an exchange arrangement whereby members of the BPS can pay their AFS subscription through the BPS Membership Secretary and *vice versa*. To take advantage of this, prospective members residing in Great Britain should contact Mr M.G. Taylor, Westlea, Kyleakin, Isle of Skye IV41 8PH (Membership@eBPS.org.uk).

SECRETARIAL NOTES

Please note: *names and contact details of all officers can be found on the inside of the front cover of this* Bulletin.

ANNUAL GENERAL MEETING 2011 – The 108th AGM will take place on Saturday 9th April 2011 at the Dunchurch Park Hotel and Conference Centre, Dunchurch, Warks. at 2p.m.

SUBSCRIPTIONS 2010 – Members are reminded that subscriptions were due on 1st January and should be paid to the Membership Secretary. Cheques should be made payable to 'The British Pteridological Society'. Current rates are given inside the front cover of this issue. Payment can be made by **Credit Card** or **PayPal**. The latter is quicker, cheaper and easier to manage than Credit Cards. Instructions for both are given on the renewal form. **Standing Order** forms are printed on the reverse of renewal forms and are also available from the Membership Secretary and the BPS website. Standing Orders may be paid on 1st January or 1st February. In either case, membership is deemed to be from 1st January to 31st December.

Members are reminded that according to Clause 11 of the Constitution "Any member whose subscription is unpaid within six calendar months of it becoming due shall be liable to have his/her name removed from the list of members of the Society". Defaulting members who do not amend their Standing Orders with their bank and are still paying at the old rate shall be notified that they will not receive the *Fern Gazette* until such time as their Standing Orders are updated. Members still paying even earlier rates shall be notified that their name will be removed from the Membership List until such times as Standing Orders are updated or cancelled. Any monies received from old Standing Orders will be treated as a donation.

GIFT AID – Since 2003 the BPS has been a registered charity. This enables us to claim back from the Inland Revenue 20p for every pound paid in the annual subscription for each member who authorises us to do so. In 2010 we were able to claim for 180 members, which brought in £1,003.83. While this is obviously an extremely valuable addition to the Society's annual income, it could be considerably more. There are probably a further 200 members or so on whose subscriptions the Society could claim Gift Aid if these members authorised it and this could lead to perhaps another £1,000 per annum. All that is required is a minimal amount of form filling (about one minute) and a second class stamp. **Even better, the form has only to be filled in once.** The forms are retained by the Gift Aid Secretary and the same ones used year after year to make the claim.

The small number of provisos is set out below:

1. Gift Aid is available only to members who reside in the UK.
2. Members on whose subscription Gift Aid is claimed must be paying income tax or capital gains tax at least equal to the amount claimed.
3. Members whose subscriptions are allowed as an expense in connection with their employment may not claim Gift Aid.

If the Inland Revenue allows us to claim relief on your membership subscription please authorise us to do so. It's the equivalent of a yearly £4 donation to the Society.

DIRECT DEBIT – The Society does not offer a Direct Debit facility for subscriptions. The reasons are two-fold. Expensive software is required to create a direct debit tape to send to the bank and is too expensive for a small Society like the BPS. With Standing Orders the bank does all the administration, whereas with Direct Debits a considerable additional workload would fall on the Society, in particular the Treasurer, and it is necessary to bear in mind that all officers offer their time and services on a voluntary basis.

PUBLICATIONS BY AIRMAIL – Our journals can be sent by airmail to overseas members, provided that they advise the Membership Secretary and pay an additional subscription to cover airmail postage. See inside front cover for rates.

E-MAIL ADDRESSES – These are published in the Membership List "for members who have a relatively stable e-mail address and who keep up-to-date with their messages". A supplementary list and amendments are published in the *Bulletin*. Members who wish to have their e-mail address added, changed or removed are requested to inform the Membership Secretary by e-mail.

NOTIFYING CHANGES OF ADDRESS – Please inform the Membership Secretary of changes of address and telephone number. He is responsible for notifying any other officers and appointees who need to know.

E-BPS DIARY SYSTEM – On our website there is an eBPS Diary System, enabling us to see all the Society's events on one calendar. With meetings happening all over the country it is only too easy for events to overlap; we hope the diary system is helping to alleviate this and proving to be a useful planner for members. The system relies on regular updates so please send details of your BPS events to the Committee Secretary, Graham Ackers.

CODES OF SAFETY, CONDUCT AND DECLARATION FORM – All members attending Society field meetings should be aware of the Society's *Safety Code* (see 2000 *Bulletin* 5(5): 275), as well as the *Code of Conduct for the Conservation and Enjoyment of Wild Plants* (see 1999 *Bulletin* 5(4): 199), and are required to sign a Declaration form. Copies of these documents can be obtained from the Meetings Secretary or BPS website.

GREENFIELD FUND – This fund, set up as a memorial to one of our Society's great fern growers, Percy Greenfield, is used to finance approved projects, helping with the cost of necessary equipment, books and travel expenses. Percy Greenfield's interest leaned very much towards the non-scientific side of our activities and it is felt that he would have wanted this taken into consideration when decisions are made. Workers eligible for university or college grants and similar support are not therefore eligible for help from the fund. Anyone wishing to apply for this funding should contact the General Secretary.

CENTENARY FUND – This fund is used to promote the study of all aspects of pteridophytes – horticultural, scientific and educational, whether by amateurs, students or professional pteridologists. As such its scope is much broader and more flexible than the Greenfield Fund. Anyone wishing to apply for this funding should contact the General Secretary.

THE J.W. DYCE AWARD – This award was set up in 2007 to honour the memory of Jimmy Dyce who was a member from 1935 until his death in 1996. The fourth J.W. Dyce award will be made at the AGM 2011 to the author(s) of the best paper, article, book or other substantial piece of work published during 2010 in any of the three BPS journals, on the BPS website or as a special publication. The award, which is a cash prize of £100, is open to everyone, whether professional or amateur pteridologist, horticulturalist or fern enthusiast.

MEMBERS' INFORMATION SERVICE – Members often require information and advice on many aspects of pteridophytes but are reluctant to ask or simply do not know where to obtain help. Queries from members on the identification or cultivation of ferns should be sent, with three first class stamps, to the Horticultural Information Adviser.

BACK NUMBERS OF JOURNALS – It upset me to have to take for recycling a few boxes of our journals recently. It would be much better if they were on members' shelves. We sell them at very reasonable rates and it is a mystery to me why more people do not avail themselves of them. I will suddenly follow a trail back through the copies on my shelves and find what valuable information and data they hold that I had read and forgotten; they are of great value to me as I further develop my interest in ferns. A bargain pack can be purchased for £6 including postage. The list is available on the website or from Pat Acock. Treat yourself!

FOREIGN FERN SOCIETY JOURNALS HELD BY THE SOCIETY - The Society exchanges journals with a number of other fern societies in the world. We have a collection from societies in America, Australia, India and the Netherlands. If members would like to browse these please contact Tim Pyner (t.pyner@btinternet.com) who holds the stock.

READING CIRCLE – The Society operates a reading circle for the *American Fern Journal*, a quarterly publication containing much information for those seriously interested in ferns. The *Fiddlehead Forum*, which publishes many 'ferny' items of interest to the amateur grower, accompanies it. To receive these journals contact Tim Pyner (t.pyner@btinternet.com).

BPS WEBSITE – www.eBPS.org.uk (hosted by The Natural History Museum.) The website provides information for the membership, but it is also, and perhaps more importantly, a 'shop window' to present the Society and pteridology to the wider world. Our aim is to make our website the premier source on the internet of information about pteridophytes and pteridology. There is also a public bulletin board or 'forum' for the discussion of all aspects of ferns and other pteridophytes – **www.fernforum.net/bb**. Members with views on what the website should provide and with offers to help with content should contact the Website Editor, Anthony Pigott. Good digital photographs of members involved in fern-related activities are particularly welcome as are suggestions or contributions for wild sites, gardens and nurseries for *Where to See Ferns.*

AMERICAN FERN SOCIETY – The AFS has a reciprocal payment arrangement with the BPS through their respective Membership Secretaries. See AFS advert on p. 253.

BRITISH WILDLIFE – Concessionary individual subscriptions to *British Wildlife* magazine are available to BPS members: www.britishwildlife.com. This excellent journal occasionally carries articles on ferns and reviews fern publications.

ROYAL HORTICULTURAL SOCIETY – Our Society is affiliated to the RHS. This enables a limited number of members to enjoy certain privileges in connection with RHS Shows, competitions and services. Some RHS Journals are available free to members at indoor meetings. Further information is available from the Treasurer.

PAYMENT OF EXPENSES – The Treasurer has *Rules for Seeking Reimbursement of Personal Travelling and Administrative Expenses* by Officers and Members acting on behalf of the Society. Forms for claiming these expenses can be obtained from the Treasurer by phone or e-mail request.

COPYRIGHT – All contributors to the BPS journals and website are required to sign an agreement assigning ownership of copyright of the article, photograph etc. to the BPS. This has the aim of safeguarding the contributors' work from unlawful copying and use. It does not stop contributors from using their own work elsewhere provided that they acknowledge the original source of publication.

MERCHANDISE – Have you bought a BPS sweatshirt, polo shirt or fleece yet? These are all dark green with a small embroidered BPS logo in yellow. Other items, such as BPS ties, metal badges, ferny greetings cards, bookmarks, pens, calendars and mugs are also for sale. There are now some new lines including jute bags and reasonably priced hand lenses. Can't find your order form? Contact the Merchandise Organisers or look on the website for details. The Organisers also welcome suggestions for new stock.

BOOKSALES – It is difficult to find second-hand fern books at reasonable prices so if you are thinking of selling any of your books please consider first offering them to the Society. Frank would also be pleased to receive any donated or bequeathed books that could then be offered to members at affordable prices. Contact him by e-mail if possible.

NURSERY ADVERTISEMENTS – Members with nurseries that offer ferns are reminded that they may place an advertisement in the *Bulletin*, *Pteridologist* and on the website, free of charge in return for the inclusion of a note about the Society in their catalogues. The Website Editor can include an image if required. If members wish their nursery to be included, in the first instance please contact the General Secretary.

PUBLICITY & MARKETING OFFICER – The Committee has appointed Liz Evans to this new post. She has already been extremely busy in her quest to raise the profile of the BPS within the on-line community. New initiatives include the on-line newsletter *Fern World* and our own blog on Posterous; we are also on Twitter and now have a Facebook page. Please contribute by signing up. Contact Liz Evans.

EDUCATION – The Education subcommittee would be very pleased to hear your ideas on how we can develop the educational role of the BPS. Please let them know your views by completing our questionnaire. If you have information about any fern-related educational initiatives or resources that you have found useful please contact Alison Evans.

SPORE EXCHANGE – The current spore list is published on our website or can be obtained from Matt Busby.

DESTINATION OF PTERIDOPHYTE RECORDS – Members are reminded that records of ferns, horsetails, clubmosses and quillworts in the wild should be sent in the first instance to the BPS Recorder, Fred Rumsey, who will forward them to the BSBI. These records are stored centrally at the Biological Records Centre, and can be accessed by the BPS. Members may also like to contact the appropriate Botanical Society of the British Isles (BSBI) Vice-county recorders, whose addresses are available from the BSBI website or BSBI yearbook, which is available to BSBI members. To help with this, Fred has developed a new recording card, which will be available on our website or directly from Fred. For those without access to the Internet or yearbook please contact the BPS Recorder for details.

FORTHCOMING EVENTS, 2011:

GARDENING SCOTLAND, EDINBURGH, 3rd-5th June – In our tour of garden shows this year we are attending this popular show in Edinburgh. See www.gardeningscotland.com. If you would like to help in anyway then please contact Frank McGavigan.

SOUTHPORT FLOWER SHOW, 18th-21st August – Why not spend a few hours or a day helping to look after the Society's stand? You do not need to be an expert on ferns or fern growing, just prepared to spend a few hours or a day with us. Expenses are available, as well as free entry to the Show. If you grow ferns, why not consider entering your best specimens; Southport is one of the few shows with amateur classes for ferns. Details are available from Michael Hayward, 6 Far Moss Road, Blundellsands, Liverpool L23 8TQ. mhaywardL23@blueyonder.co.uk.

FERNS AND FOSSILS, THE JOHN HOPE GATEWAY CENTRE, ROYAL BOTANIC GARDEN EDINBURGH, 24th-25th September – Following on from our success at Manchester Museum, the Education subcommittee is presenting a 2-day BPS event with displays and talks at this excellent new venue. Attendance is free! See www.rbge.org.uk/the-gardens/edinburgh/the-gateway. Contact Frank McGavigan if you would like to help.

FERN COURSES, 2011:

ROYAL BOTANIC GARDEN EDINBURGH, 11th June – Fern Identification: a 1-day course. Tutor: Heather McHaffie. To book, contact RBGE education office 0131-248-2937 or e-mail education@rbge.org.uk.

FSC KINDROGAN FIELD CENTRE, 4th-8th July – Fern Identification: a residential course. Tutor: Heather McHaffie. To book, contact the Field Studies Council on 01250-870150 or e-mail admin.kd@field-studies-council.org.uk.

FSC PRESTON MONTFORD FIELD CENTRE, 2nd August – Fern Identification: a 1-day course. Tutor: Mark Duffell. To book, contact the Field Studies Council on 0845-3307378 or e-mail admin.pm@field-studies-council.org.uk.

FSC RHYD-Y-CREUAU – DRAPERS' FIELD CENTRE, 12th-15th August – Fern Identification: a residential course. Tutor: Chris Metherell. To book, contact the Field Studies Council on 01690-710494 or e-mail admin.rc@field-studies-council.org.uk.

ANNUAL GENERAL MEETING 2010

MINUTES of the 107th Annual General Meeting of the British Pteridological Society held on Saturday 10th April 2010 at The Natural History Museum, London at 14.10 hrs.

IN THE CHAIR: The President, Mr Robert Sykes.

PRESENT: Graham Ackers, Pat Acock, A.R. (Matt) Busby, Richard Dadd, John Edgington, Alison Evans, Mary Gibby, Roger Golding, Yvonne Golding, Alec Greening, Michael Hayward, Graham Hoare, Jennifer Ide, Bridget Laue, Jude Lawton, Sylvia Martinelli, Howard Matthews, Frank McGavigan, Christine Mullins, Karen Munyard, Steve Munyard, Joy Neal, Alison Paul, Anthony Pigott, Tim Pyner, Julian Reed, Martin Rickard, Paul Ripley, Fred Rumsey, Bryan Smith, Barrie Stevenson, Matt Stribley, Sarah Whittingham, Lesley Williams.

Item 1 – APOLOGIES FOR ABSENCE: Rob Cooke, Jonathan Crowe, Brian & Sue Dockerill, Adrian Dyer, Peter Freshwater, Nick Hards, Frank Katzer, Elise Knox-Thomas, Alan Ogden, Mike Porter, Sandy Strang, Wita Wardani, Alastair Wardlaw.

Item 2 – APPROVAL OF THE MINUTES: Minutes of the 106th Annual General Meeting of the British Pteridological Society held on Saturday 4th April 2009 and published in the *Bulletin* (Vol. 7, No. 2) were approved and signed by the Chairman.

Item 3 – MATTERS ARISING: There were none.

Item 4a – REPORT OF THE GENERAL SECRETARY: This report, which was published in the *Bulletin* (Vol. 7, No. 2) was read out by its author, Yvonne Golding. In highlighting Alison Paul's efforts over the years, in her report Yvonne had omitted to mention her facilitating and hosting many of the Society's meetings at the Natural History Museum. Also, Sarah Whittingham reported that her book was now due to be published in the spring of 2012, not end of 2010 as stated in the report.

Item 4b – REPORT OF THE TREASURER: The Society's accounts for 2009 had been published in the *Bulletin* (Vol. 7, No. 2). The Treasurer, Gill Smith, could not be present, but had sent some notes that were read out by Yvonne Golding. Gill did not think that it was necessary to put up the subscriptions at this time but noted that we will have to review it in the next couple of years if the size of our regular publications (*Pteridologist*/*Bulletin*) keeps increasing. The cost of printing increases once you get past a certain thickness and the heavier package falls into the next mailing price bracket. The three regular publications (*Pteridologist*/*Bulletin*/*Gazette*) already account for about £13/£14 of the £20 subscription fee. Of those members who do not have the *Gazette*, the *Pteridologist* and *Bulletin* take up £10/£11 of the £16 subscription. Mail prices had just increased from 6 April 2010.

Donations income had risen from £96 in 2008 to £690 in 2009, but Bridget Laue pointed out that this was due to both £190 prize money (Silver Medal from Tatton Park RHS Show) and an OPAL grant of £500 (for the Ferns and Fossils event at Manchester Museum) as documented in note 12 of the Accounts, and this latter was unlikely to be repeated in the short term.

Jennifer Ide suggested that a BPS presence at shows later in the year might encourage attendees to join the Society in time for the January/February subscription renewal.

Item 5 – QUESTIONS ON OFFICERS' REPORTS

***Pteridologist* Editor.** Martin Rickard reported that Alec Greening had agreed to be the Senior Editor of the *Pteridologist* with immediate effect, and so all future contributions should be sent to him. Martin will continue to be involved as Assistant Editor.

***Bulletin* Editor.** Alison Paul reported that the index to Volumes 1-5 was now on the new *Bulletin* page of the BPS website. Hard copies will be produced for all members as previously agreed and Gill Smith had approved the printing cost of c. £1 per copy. Distribution method to be decided by Gill and Alison.

Website Editor. Anthony Pigott reported that all six parts of Volume 6 of the *Bulletin* were now on the website. It was planned to put all back issues of our journals on the web, but there were still issues with the quality of the scanning and this was being investigated.

Education Officer. Alison Evans requested feedback on education priorities and initiatives.

Project Officer. Anthony Pigott reported that the Photographic Recording project, run by himself, Chris Page and Yvonne Golding, had as yet no participants and therefore urged some members to take part. Yvonne Golding suggested that Regional Groups could incorporate this into their meetings.

Item 6 – QUESTIONS ON COMMITTEE APPOINTEES' REPORTS

Fern Varieties Nomenclature Subcommittee. As reported, this subcommittee will be disbanded. Martin Rickard recounted the circumstances of its original creation, when the Royal Horticultural Society (Chris Brickell and Peter Barnes) had pointed out that the Society were giving fern cultivars names that were illegal under the International Code of Nomenclature for Cultivated Plants.

Cultivar Registration Subcommittee. Robert Sykes reported slow progress with the work of this subcommittee, but hoped for more progress in the future as a result of Martin Rickard standing down as Senior *Pteridologist* Editor.

Item 7 – ELECTION OF OFFICERS AND COMMITTEE AND APPOINTMENT OF INDEPENDENT EXAMINERS

President. Prof. Mary Gibby, as President-elect currently, was now declared President.

Vice-Presidents. Having come to the end of his three-year term of office, Mike Porter was not available for re-election. Rob Cooke, also at the end of his three-year term, was available for re-election. This was proposed by Fred Rumsey, seconded by Mary Gibby, and Rob was duly re-elected as a Vice-President for another three-year term.

Officers. Alec Greening was proposed for Senior *Pteridologist* Editor by Jennifer Ide, seconded by Yvonne Golding, and duly elected. Having been appointed initially by the committee, Alison Evans was now formally proposed as Education Officer by the committee, seconded by Michael Hayward, and duly elected. The remaining Officers were all available for re-election, proposed by Jennifer Ide, seconded by Frank McGavigan, and duly re-elected en bloc. [General Secretary: Yvonne Golding, Committee Secretary: Graham Ackers, Treasurer: Gillian Smith, Membership Secretary: Mike Taylor, Meetings Secretary: Rob Cooke, Conservation Officers: Heather McHaffie and Fred Rumsey, Project Officer: Anthony Pigott, Publications Secretary: Martin Rickard, *Fern Gazette* Editor: Mary Gibby, *Bulletin* Editor: Alison Paul, Website Editor: Anthony Pigott.]

Elected Committee Members. Having served his five-year term of office, Michael Hayward retired at the AGM. Frank McGavigan had been nominated for the committee. The nine existing members were all available for re-election, and with Frank McGavigan were proposed by Alison Paul, seconded by Joy Neal and were duly elected/re-elected en bloc. [John Edgington, Roger Golding, Alec Greening, Bridget Laue, Sylvia Martinelli, Howard Matthews, Frank McGavigan, Paul Ripley, Bryan Smith, Matt Stribley.]

Independent Examiners. Nick Hards and Alex Storie had agreed to continue in this capacity.

Item 8 – ANY OTHER BUSINESS

Outstanding Contribution Award. This award was presented to Alison Paul in recognition of her many years of continuing service, including Membership Secretary, Editor of the *Bulletin*, and host for many meetings at the Natural History Museum. Robert Sykes described Alison as "the bedrock of the Society". Alison expressed her appreciation.

J.W. Dyce Award. This was presented to Tim Pyner whose *Pteridologist* article 'Growing ferns in a challenging climate' was considered the best published contribution in 2009.

NEC Gardeners' World Live! Bryan Smith asked for volunteers to help man the BPS stand at this show.

Sylvia Martinelli reported that the **Autumn Meeting** on 6th November would definitely go ahead.

Yvonne Golding asked people to take some of the **BPS promotional leaflets** that she had produced for distribution and display them at appropriate venues.

Robert Sykes closed the meeting at 15.20.

Graham Ackers, Committee Secretary

BPS ACCOUNTS FOR 2010

	2009	2010
ORDINARY ACCOUNT		
INCOME		
Subscriptions (*see note 1*)	£12,632.97	£13,877.46
Interest (*see note 11*)	£329.74	£141.03
Booksales	£6,293.50	£2,008.00
Merchandise	£1,033.45	£1,697.31
Inland Revenue Gift Aid (*2009 value = 2008 + 2009*)	£1,935.67	£1,003.83
Publishers Licensing Society	£200.46	£474.19
Donations (*see note 12*)	£690.00	£315.30
Other	£39.50	£293.46
TOTAL INCOME	**£23,155.29**	**£19,810.58**
EXPENDITURE		
Pteridologist	£5,075.96	£5,248.83
Fern Gazette (*see note 10*)	£1,948.98	£3,308.24
Bulletin (*see note 8*)	£4,395.77	£5,569.46
Printing & Stationery	£309.81	£1,225.67
Administration & Postage	£554.42	£602.38
Subscriptions to Societies	£96.00	£38.00
Plant & Spore Exchanges	£43.00	£82.60
Meetings	£147.37	£372.88
Merchandise	£345.23	£1,516.31
Trustees' Expenses	£1,271.01	£985.10
Archive Storage	£517.98	£78.03
Booksales	£1,864.63	£131.00
Special Awards	£100.00	£185.14
Autumn Mailing	£551.59	£1,571.78
Credit Card Costs	£94.76	£363.51
Computer Leasing (*see note 7*)	£642.48	£506.82
Promotion & Advertising	£1,120.93	£1,104.21
Donation to Benmore Fernery	£2,500.00	£0.00
TOTAL EXPENDITURE	**£21,579.92**	**£22,889.96**
Balance (income minus expenditure)	**£1,575.37**	**–£3,079.38**
Brought Forward from previous year	**£33,305.50**	**£34,880.87**
Total in Ordinary Account	**£34,880.87**	**£31,801.49**
CENTENARY FUND (Restricted Account)		
Interest	£71.70	£29.57
Interest brought forward from previous year	£1,657.68	£1,729.38
Grant (*see note 6*)	£0.00	£594.66
Total Interest	**£1,729.38**	**£1,164.29**
Capital brought forward from previous year	£5,583.73	£5,583.73
Total in Centenary Fund	**£7,313.11**	**£6,748.02**

GREENFIELD FUND (Restricted Account)

Interest	£26.94	£11.11
Interest brought forward from previous year	£1,669.78	£1,696.72
Grant (*see note 6*)	£0.00	£500.00
Total Interest	**£1,696.72**	**£1,207.83**
Capital brought forward from previous year	£1,051.00	£1,051.00
Total in Greenfield Fund	**£2,747.72**	**£2,258.83**

PUBLICATIONS ACCOUNT

Brought forward from previous year	£10,086.92	£10,960.96
Income	£774.17	£748.45
Interest	£99.87	£44.32
Expenditure	£0.00	£50.00
Total in Publications Account	**£10,960.96**	**£11,703.73**

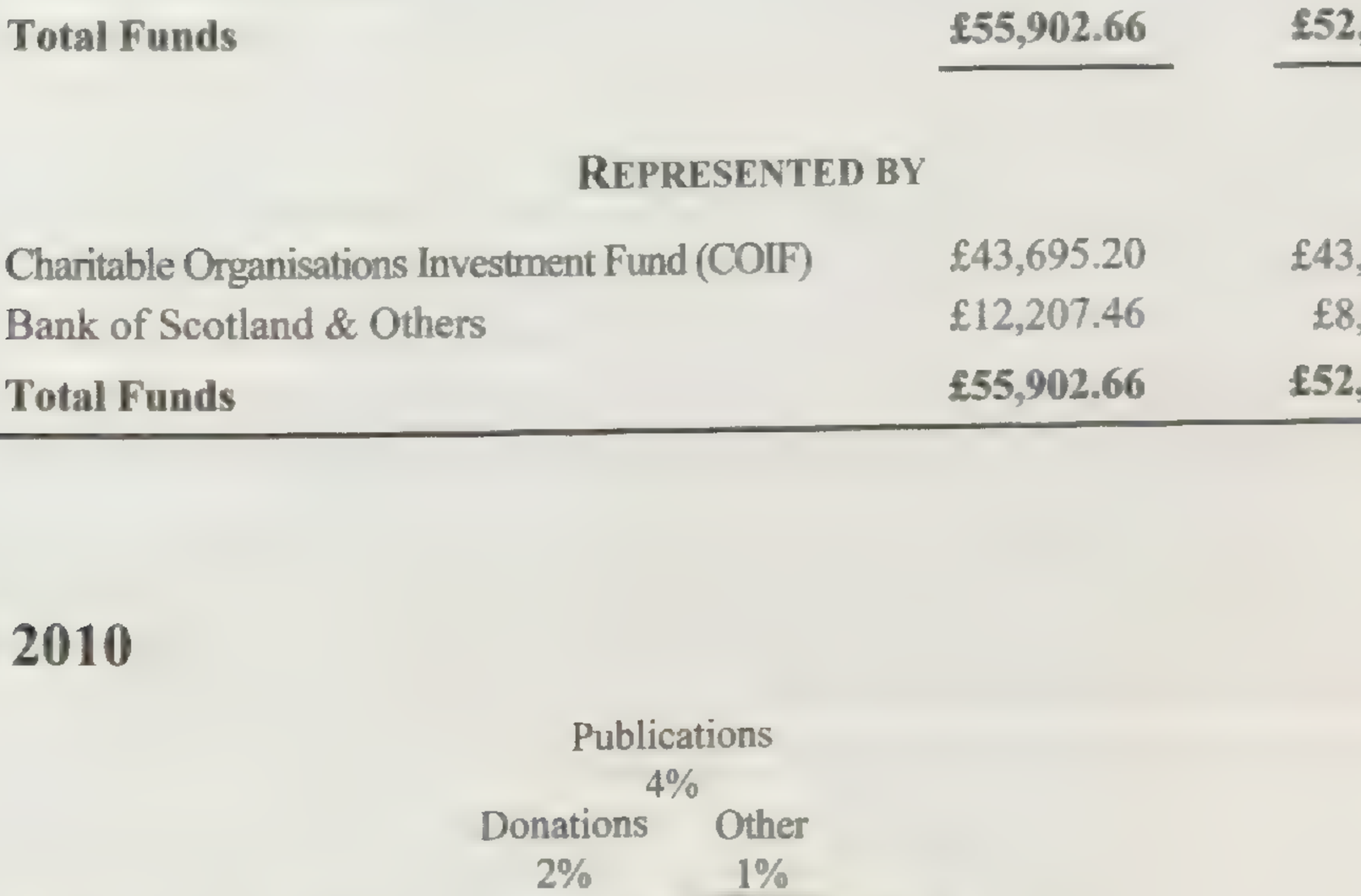
TOTAL FUNDS FOR YEAR ENDING 31 DECEMBER 2010

Ordinary Account	£34,880.87	£31,801.49
Centenary Fund	£7,313.11	£6,748.02
Greenfield Fund	£2,747.72	£2,258.83
Publications Account	£10,960.96	£11,703.73
Total Funds	**£55,902.66**	**£52,512.07**

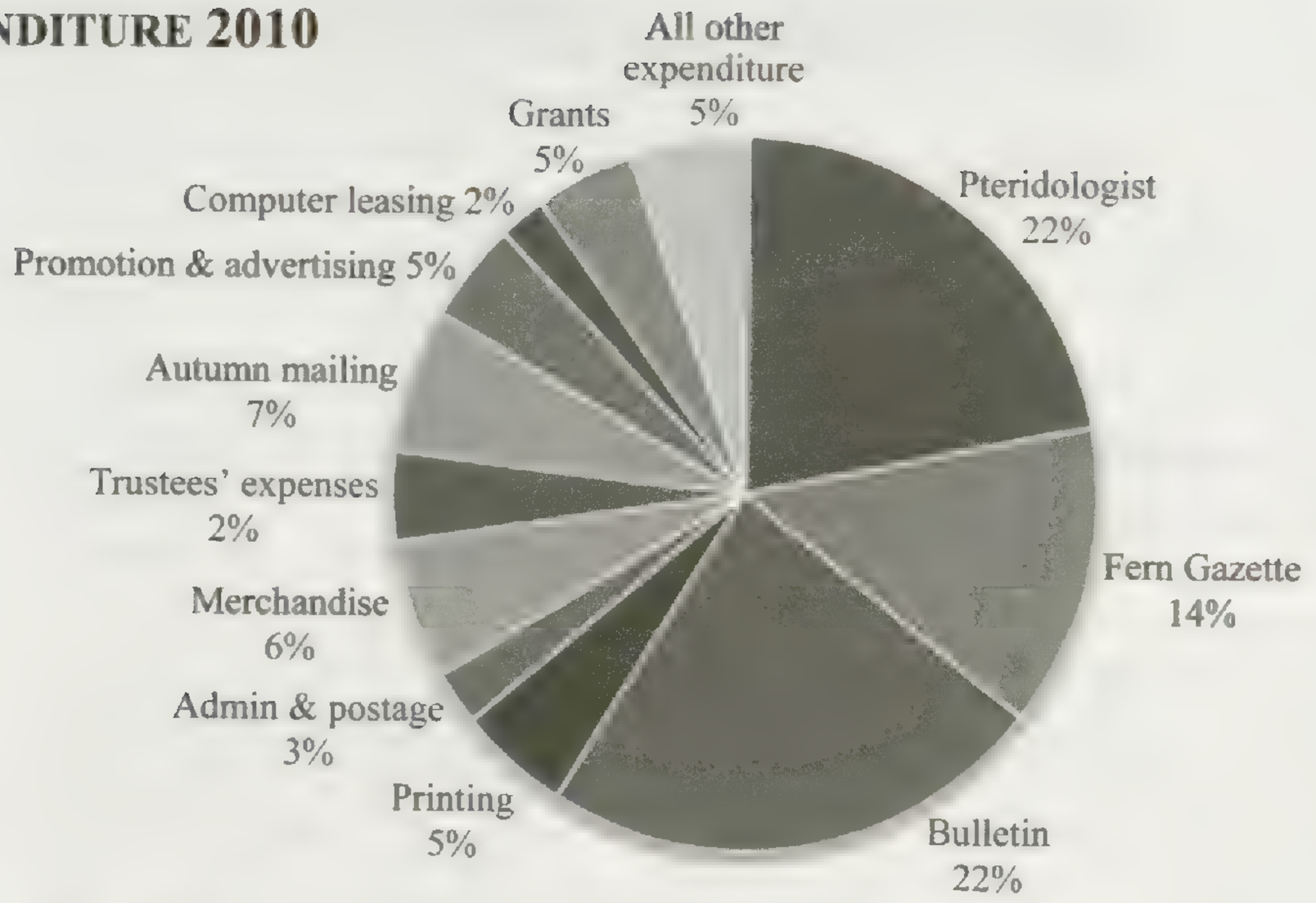
REPRESENTED BY

Charitable Organisations Investment Fund (COIF)	£43,695.20	£43,921.23
Bank of Scotland & Others	£12,207.46	£8,590.84
Total Funds	**£55,902.66**	**£52,512.07**

INCOME 2010



EXPENDITURE 2010



NOTES TO THE ACCOUNTS

1. The accounts reflect the subscriptions actually received in the year.
2. The Society has not paid an agency for advertising but has been promoting and advertising the Society via RHS & BBC national shows and public display days.
3. The Society possesses the following stock: FSC Key to Common Ferns – 220 valued at £440. Back issues of the *Bulletin*, *Fern Gazette* and *Pteridologist* valued at approximately £2,000. Merchandising valued at approximately £2,500 & capital of £1,580.19. Booksales – new and second-hand books valued at approximately £5,000 & capital of £2,669.83. BPS Special Publications entitled valued at (& no. copies): Guide to Hardy Ferns (2) £20; Fern Names and their Meanings (63) £283; Cultivation and Propagation (220) £1,100; History of British Pteridology (678) £2,034; BPS Abstracts & Papers (366) £1,090; CD Rom – BPS Minute Book (19) £190; Polystichum Cultivars (12) £150; New Atlas of Ferns (51) £459; Fern Books Before 1900 (348) £5,220; Occasional Paper of the BPS (12) £30.
4. Full details of Merchandise and Booksales Accounts can be obtained from the Managers.
5. The Society decided to split our two Restricted Funds into 'Capital' and 'Interest'. The 'Interest' section of the Funds is available for payment as grants.
6. Grants were paid: £594.66 to Maurice Wilkins of Arduaine Garden from the Centenary Fund, and £500 to Janet Jephcott from the Greenfield Fund. See reports on pp. 271-273 of this *Bulletin*.
7. Computers for specific BPS officers' use are being leased from Dell Computers. This gives the Society the ability to keep up with computer technology without having to invest capital funds.
8. The cost of production of the *Bulletin* has not risen by much this year. The figure shown in the accounts includes the printing cost of an Index for volumes 1-5 of the *Bulletin*.
9. A new Credit Card Protection Scheme was introduced in 2010 that everyone accepting Credit Cards HAD to join. A non-compliance charge of £50 per month was levied on each customer until they completed the accreditation. There is now a monthly charge of £22.50 whatever, so PayPal is now the recommended payment route - cheaper and easier!
10. Two issues of *The Fern Gazette* were produced in 2010 BUT one of these was the second 2009 issue. The second issue of 2010 will be produced this spring, followed by the TWO issues for 2011, this should bring the *Gazette* up-to-date.
11. Interest rates have still been very low. The BoS account terms have been changed so now gives NO INTEREST at all! The COIF account interest rate was 0.565% at end December 2010, slightly higher than end 2009. No surplus money will be kept in BoS during 2011 to try to maximise income.
12. Donations include £150 from NEC Gardeners' World Live Show towards expenses and £150 prize money from Southport Show.

Gillian Smith, Treasurer

ACCOUNTS FOR THE YEAR ENDING 31 DECEMBER 2010

I have examined the accounting records maintained by the Treasurer of the British Pteridological Society. I can certify that the accounts presented to me are in accordance with the books and records.

Dr Nick Hards, Independent Examiner, 9th March 2011

REPORTS OF OFFICERS & COMMITTEE APPOINTEES FOR 2010

GENERAL SECRETARY – Yvonne Golding

In 2010 the BPS committee first met in January at The Natural History Museum in London. We also had our AGM at the NHM, where we were treated to illustrated fern tours of Australia and California by BPS members and enjoyed a stimulating talk by member Dr Sarah Whittingham on her specialist subject, the History of Pteridology. Tim Pyner was awarded the third J.W. Dyce award for his excellent and comprehensive review 'Growing ferns in a challenging climate'. The award (of £100) is open to anyone who writes an interesting and informative article for any of our publications. We were also pleased to present Alison Paul with an Outstanding Contribution Award for all the hard work she has put into the Society in her roles as Membership Secretary, Editor of the *Bulletin* and for organising many meetings at the NHM. We said good-bye to Robert Sykes, thanking him for his service, and welcomed Mary Gibby as our new President. Rob Cooke was re-elected as a Vice-President and Frank McGavigan was welcomed back on the committee. Alec Greening became the Senior Editor of *Pteridologist* and Alison Evans took on the role of Education Officer. This new committee met in June at the Royal Botanic Garden Edinburgh and again in October at The Firs Botanical Grounds, University of Manchester.

We were all deeply saddened and shocked to learn of the death of Ken Trewren who made such a massive contribution to Pteridology and to the Society. Many BPS members attended his funeral and green burial in a scenic dale on the North York Moors. His obituary is published in the *Bulletin*. We were also sorry to hear that Sigfried Förster from Germany had died; he had been a member since 1998.

We awarded a BPS grant from the Greenfield Fund to Janet Jephcott, a young horticulturalist at Cambridge Botanic Garden. Janet is currently propagating and expanding the fern collection at Cambridge aided by the support, knowledge and contacts she gained on her funded visits to Edinburgh, Glasgow and Kew Botanic Gardens. We were also pleased to award Maurice Wilkins, head gardener of the National Trust garden at Arduaine near Oban in Scotland, a grant from the Centenary Fund to provide durable labels for their extensive fern collection.

An ambitious project was to realise Frank McGavigan's initiative in producing the excellent *Fern Gardens of Scotland* leaflet in time for the summer season. We very much hope that other regions will want to take up the challenge and produce leaflets for their own areas. Frank has produced excellent guidance notes to help get you started.

One of our aims in the BPS is to attend more shows. We have had an annual stand at Southport for almost sixty years, Michael Hayward taking over the organisation from Matt Busby six years ago. After a break of five years the BPS was once again represented at the BBC Gardeners' World Live Show at the NEC Birmingham, gaining a commendation and giving us the opportunity to engage with thousands of visitors. The event was very ably co-ordinated by Bryan and Gill Smith with a team of BPS volunteers. All those that contributed agreed that it was a very enjoyable experience, which was further enhanced by Gill and Bryan's generous hospitality. In 2011 we will spread the net further by attending 'Gardening Scotland', hosted by the Royal Caledonian Horticultural Society in Edinburgh in early June. We urge all members to get involved with shows. It is a very enjoyable way to help raise the profile of our Society.

In November I was invited to the Open Air Laboratories Network (OPAL) meeting in London and was delighted to find that OPAL highlighted in their presentation our lottery-funded event 'Ferns and Fossils' as an example of good practice, showing what could be

achieved with a relatively small amount of money. This certainly raised our profile among representatives of the other societies present at the meeting. The Education Committee is taking 'Ferns and Fossils' to the Royal Botanic Garden Edinburgh in 2011 and possibly to other venues in the future.

Our regional groups continue to grow and many are actively involved with monitoring fern sites and collecting records. This is a very valuable resource. I would like to encourage regional group leaders to continue and to expand this important work by participating in the Photographic Recording Project, which involves visiting sites on a regular basis and keeping a photographic record. Further details are on the website.

After a couple of years of searching for a Publicity and Marketing Officer, the committee was delighted to appoint Liz Evans to this new post. Liz has already been very busy in devising *Fern World*, a new on-line newsletter, and dragging us into the twenty-first century by enabling us to blog and twitter! She has also set up our own Facebook page. We hope this will encourage younger people to join our Society. This, together with the election last year of Alison Evans as Education Officer, is an important step forward for our Society in helping to raise our profile and fulfil our charitable objectives.

All in all I should say that 2010 was another successful year for the Society. Our membership is again increasing but there is no room for complacency; we would like all our members to contribute by supporting our activities and initiatives and, importantly, by encouraging friends and family to join the BPS and take an interest in ferns.

MEMBERSHIP SECRETARY – Mike Taylor

Once again there was a small overall increase in membership numbers and hopefully this trend will continue into 2011. We now have a total of 713 members made up of 506 Full, 84 Optional (not receiving *The Fern Gazette*), 30 Complimentary, 8 Honorary and 7 Student members and 79 Subscribers. The number of Subscribers has decreased again, this year by two, however, the number of members who pay via the AFS has dramatically increased by 26 to 90.

MEETINGS SECRETARY – Rob Cooke

The meetings subcommittee has pulled together another varied schedule of meetings for this coming year; in the British Isles we will have meetings in Exmoor, the East Midlands, Central Scotland and the Isle of Man, offering a mix of field and garden visits and, as has become the custom, two overseas visits, to Madeira and south-eastern USA. The overseas trips in particular do take considerable organisation and as a result the organisers often need early indications of interest. For this reason we also provide a forward planner for overseas trips; for 2012 we are beginning planning trips to South Africa and Austria/Bavaria. If you are interested in these trips you should let the organisers know as soon as possible.

As usual the meetings schedule is entirely dependent upon volunteers offering to organise the meetings; I know that this can be time-consuming and as ever, on behalf of the Society, I offer my sincere thanks to them. Their reward is of course lots of satisfied members attending the meeting, so please do continue to support this aspect of the Society's activities.

As I announced last year I shall be standing down at this AGM. I am sure that my successor will enjoy your support. If you are interested in helping out with the meetings programme the subcommittee is always interested in new members or offers to lead meetings. Please do contact us.

CONSERVATION OFFICER – Fred Rumsey

Revised conservation statuses for all of the British taxa, including for the first time all of our hybrids, are in preparation. Following consultation, several amendments have already

been made to the UK Red-list including the recognition of some taxa of controversial native status now apparently extinct in this country, e.g. *Asplenium fontanum*. Taxonomic changes have led to some reassessments, whereas for others the discovery of new sites or historical finds has necessitated change. The *Dryopteris affinis* complex, including the recently discovered *Dryopteris pseudodisjuncta* have been reassessed following their recognition at specific level but clearly more work is needed to assess how threatened some of the rarer taxa are. Fieldwork by BPS local groups led by the late and sadly missed Ken Trewren helped begin this process. A find of a herbarium specimen of *Equisetum ramosissimum* dating from the 1700s has also led to a fresh look at this species' status – generally considered to be an alien but paradoxically still protected under the Wildlife and Countryside Act. Members of the Society continue to contribute to the monitoring and local management of many of our rarest species and it is encouraging to report that several of our most threatened taxa e.g. *Woodsia* spp. would appear to be doing well.

RECORDING OFFICER – Fred Rumsey

This year has seen some very encouraging initiatives from local groups, with many more records made on field meetings feeding back into the wider biological recording network. My thanks to all of those who have helped make records, and to those who have collated the data and forwarded it to me. It was particularly good to hear from the Manchester and North Midlands Group that the outlying Biggin population of *Dryopteris submontana* (now *D. mindshelkensis*) first found by Society members in 1997 has increased in number. Plants have been precisely located and as a consequence we can accurately monitor this interesting population's performance, which will help tell us more about this interesting species.

The most exciting new find to report this year is Jeremy Roberts' discovery of the hybrid between our two native *Hymenophyllum* species. This has long been sought, as its polyploid derivative has been known in Madeira for over 50 years but, in spite of several tantalisingly inconclusive finds, had previously eluded us. The discovery is currently being written up.

Work on an updated British fern list is also nearing completion.

I would once again encourage anyone with records or observations of alien fern species that have escaped from gardens to contact me with the details. Discussions with members in the midlands would suggest that this is primarily a southern phenomenon – is temperature a major limiting factor? News of how long-established exotics have survived the last three bitter winters would be useful in this respect, so please keep those records and observations coming.

PUBLICATIONS SECRETARY – Martin Rickard

The *Bulletin* and *Pteridologist* have appeared on schedule over the last 12 months, both were again larger issues than normal. Unfortunately the last two issues of *The Fern Gazette* have been delayed due to unforeseen problems. We hope to have the issues sorted and publication restored to its normal frequency in the near future.

There have been no new Special Publications this year but existing volumes have sold well, particularly *Polystichum* by Jimmy Dyce, which is almost out of print. In the future there could soon be a sister volume on *Polypodium*. In addition the Society is looking to become a Registrar for fern cultivars. This will entail publication of further material, initially on *Osmunda regalis* and *Polypodium vulgare* agg.

***FERN GAZETTE* EDITOR – Mary Gibby**

There is a shortage of copy for *The Fern Gazette* at present. One part has been published but at the moment lack of copy has prevented publication of the second part for 2010. One manuscript is out for review, one submitted manuscript has just been rejected. The situation will be reviewed during January 2011.

PTERIDOLOGIST EDITOR – Alec Greening

The 2010 *Pteridologist* was yet another bumper issue with 80 pages. For the second year running it had to be perfect bound because of its size and I would like this method of binding to continue, subject to finance, in order to maintain continuity. The increasing cost of paper and postage means that we have probably reached the maximum size limit.

Unfortunately, there was an error at the printers that meant that most of the images in the 2010 edition were too dark. My apologies to all those whose photos were not as they had expected. I have discussed this with the printer and steps have been taken to ensure that this problem will not happen again.

With this issue Martin Rickard stepped down as editor and left me with the daunting task of sourcing the material for 2011 myself. An appeal in the Autumn mailing for articles had a very positive result, with many new authors coming forward, which is particularly gratifying. The 2011 *Pteridologist* is on track for publication in late May or early June. I am always looking for articles and images of a ferny nature and if any members have something suitable for publication please send them to me for consideration.

BULLETIN EDITOR – Alison Paul

The 2010 *Bulletin*, at 84 pages, was somewhat slimmer than the previous few issues, mainly because there were no long overseas meetings in 2010. However, it included a complete address list, as is our policy every three years, which brought it up to 100 pages in total. The address list includes e-mail addresses so please remember to notify our Membership Secretary, Mike Taylor, if you change either your postal or e-mail addresses!

In June members received a printed copy of the Index to Volumes 1-5 of the *Bulletin* compiled by Jonathan Crowe, which had been available for a while on the BPS website. Nick Hards has begun work on an Index to volume 6.

WEBSITE EDITOR – Anthony Pigott

The website continues to develop, both with the usual updates of BPS information such as meetings programmes, spore lists and publications, and new features in the past year such as the 2km distribution maps and the back numbers of the *Bulletin*. The front page has continued to evolve, with much more information directly accessible from there. We continue to work with a system of 'content providers' to enable more people to be involved in the acquisition and update of material for the website.

The BPS Fern Forum (http://www.fernforum.net/bb/) continues to grow and now has over 170 registered members. The Forum enables experts and enthusiasts from all over the world to exchange information about all aspects of pteridophytes. We see this as a significant service provided by the Society and one that enhances its visibility and standing.

As always, offers of contributions and other help are extremely welcome. A list of ways that people can help, large and small, is on the website.

We have looked at the use of 'social networking' to enhance the way the Society communicates with its members. These have recently been considerably expanded and are covered in more detail in the Publicity Officer's report.

EDUCATION OFFICER – Alison Evans

The Education subcommittee consists of Alison Evans, Yvonne Golding, Bridget Laue, Frank McGavigan and Heather McHaffie. We have had three meetings during the year, in February, May and October. Our major task in the first part of the year was to produce the 'Fern Gardens of Scotland' leaflet, Frank's brainchild, which we managed to distribute to the gardens in time for the summer tourist season. Thanks go to Alec Greening for his work on lay-out and for organising the printing. Frank has now produced guidance notes for

regional organisers, and there has been interest from several other regions in producing their own 'Fern Gardens' leaflets.

Following Yvonne's successful bid for OPAL funding for the 'Ferns and Fossils' educational event at Manchester Museum, we submitted a further application for funding for leaflets explaining what ferns are and encouraging people to look for and record them. The application was unsuccessful but we were given valuable feedback and we are in the process of revising the application for the next round of funding. We plan to work with other organisations such as the National Trust and Forestry Commission to have a 'Fern BioBlitz' day in 2012, when volunteers work with more expert people to record all the ferns in a particular area. We plan to produce leaflets that will support these events.

Yvonne attended the OPAL annual conference in November, when our 'Ferns and Fossils' event was used as a case study of an example of good use of an OPAL grant. We intend to reuse some of the Ferns and Fossils interpretation material at an educational event open to the public at the RBGE Gateway Centre on the 24th and 25th September 2011. We hope to develop a 'Ferns and Fossils' road-show that would be less labour-intensive than the Manchester event, and we may be able to pilot this at the Yorkshire Museum in York.

We are continuing to publicise the BPS and educate the general public about ferns through stands at gardening shows, and through links with other organisations. In May, Yvonne and Roland represented the BPS on International Biodiversity Day at Sheffield Botanical Gardens with a display of ferns and posters generated from our OPAL grant. In March, I had a stand and poster display at the Yorkshire Naturalists' Union conference, and Bridget, Heather and Frank did likewise at the BSS/BSBI conference in Scotland in November. The BPS stand at the Birmingham 'Gardeners' World Live' show also attracted a lot of interest. We have requested a stand at the 'Gardening Scotland' show in June 2011 and are considering the Malvern Show for 2012.

We have been collaborating with our new Publicity Officer, Lizzie Evans, to increase the publicity for BPS events. A questionnaire on members' educational wants was circulated with the autumn mailing, and is ongoing via: http://www.surveymonkey.com/s/LFK2VY3.

We have drafted plans for a 'Fern World Academy' education section on the BPS website, where we can provide downloadable leaflets and information in response to people's requests. We welcome feedback from members on what they would like to see in the way of education from the BPS, so please feel free to e-mail Education@eBPS.org.uk with your comments and suggestions.

PUBLICITY & MARKETING OFFICER – Lizzie Evans

The post of Publicity and Marketing Officer is a new role, which I am currently undertaking singlehandedly. However, help and support from various committee members has been vital in getting started and I would particularly like to thank Anthony Pigott, Roger Golding and the Education subcommittee for their advice.

I have been working on helping to raise the profile of the Society and have set up accounts on Facebook, Twitter and Posterous. Posterous is an easy to use blogging platform that registered contributors can upload content to by sending a simple e-mail to the site. I have automatically registered all committee members and regional group leaders as contributors, and will register any other members that wish to contribute as and when they express an interest.

I am hoping to encourage more active participation from existing members of the Society as well as hopefully attracting new members. One of the things I am aiming to do is to send out a quarterly e-mail newsletter with a round-up of things that have been happening and a reminder of things that are coming up in the next months. If you have news or events that you would like me to publicise, please contact me at the publicity e-mail address: Publicity@eBPS.org.uk.

I have been greatly assisted by the regional group leaders who passed on lists of e-mail addresses and also by Mike Taylor the membership secretary who forwarded me his list of members' e-mail addresses. To build a successful mailing list, all members were sent an initial e-mail individually with the first newsletter asking them to subscribe to an online mailing list service if they wished to receive the newsletter in future. This way, members who do not wish to opt into the mailing list would not be contacted again by mistake.

In the coming months I also hope to build up a list of contacts with other nature organisations and local news groups to help promote the Society's activities to a wider audience.

PROJECT OFFICER – Anthony Pigott

We currently have four main projects underway:

Recording & Mapping. This project will implement a number of items all aimed at increasing the participation of the BPS in the recording and analysis of pteridophyte distribution in Britain and Ireland. This will include encouraging members to make records and working with the BSBI to facilitate the input of new data and access to existing records. This has been unfortunately delayed recently but with the production of new recording cards we are making progress again and hope to have the main project fully underway in the coming year. (See also Recording Officer's report.)

Photographic Recording. This project is separate from but complementary to the Recording & Mapping Project. It invites people to take photographs of fern sites at different points in time with a view to learning about variations in conditions and abundance. The project was launched in April 2009 with full details on the website. Members are strongly encouraged to participate.

On-line Journals. The BPS decided to make back numbers of its journals available on-line. There is a tremendous wealth of pteridophyte knowledge in those pages that is currently difficult to access and search. This project has looked at the technical and administrative issues involved. We have made available Volume 6 of the *Bulletin* and will follow that with recent issues of the *Pteridologist* and *The Fern Gazette*.

Website Development. We see the website as being of increasing importance to the BPS and the way it communicates with its members and the public. This project continues to look at ways to get more people involved and to make our web activities easier to expand and develop. As a result of the Fern Forum implementation, the BPS now has additional web hosting facilities available, which will lead to innovative ways to implement some website features such as an expanded and revamped *Where to see Ferns* using wiki software. (See also Website Editor's report.)

SPORE EXCHANGE ORGANISER – Matt Busby

I am pleased to report that all 112 requests were completed and sent out before the 1st April 2010. The most popular species was *Dryopteris iranica*, with various aspleniums a close second. Each year any three-year-old spores are deleted from the list and I was pleased to take these spores to the 2010 AGM for free distribution to members. I look forward to doing this each year.

I make my usual plea to members for donations of spores to the spore exchange at any time. There is no need to clean the spores, just place fertile fronds in envelopes with a comment naming the species and the donor's name. It is a good idea to check through the 2010 list (available on the website) and see if you have items in your collections that are missing from the list. I am always pleased and willing to answer any queries about donating spores. Please e-mail any queries to spores@ebps.org.uk.

I thank all the 2010 donors for their support and also various Committee members for their advice.

PLANT EXCHANGE ORGANISER – Jonathan Crowe

Donor forms were distributed with the spring 2010 mailing. The Plant Exchange List was compiled and distributed mid-March 2010.

Statistics for taxa offered are shown below:

Status Code	Plant Status Description	No. in 2005	No. in 2007	No. in 2008	No. in 2009	No. in 2010
Sp0	Sporeling less than 1 year old	0	0	6	13	0
Sp1	Sporeling 1-2 years old	15	13	17	18	17
Sp2	Sporeling 2-3 years old	15	7	19	16	19
Esp	Established plant	39	7	20	30	42
Bul	Bulbil	0	1	6	5	4
Rhs	Rhizomes	1	1	1	4	6
	Plant status not stated by donor	0	0	0	0	0
	Totals	**70**	**29**	**69**	**86**	**88**

The statistics for participants are shown below:

Category of Participant	2005	2007	2008	2009	2010
Donors only (thus only offering plants)	8	7	4	6	6
Donors also having 'wants'	-	-	3	2	3
'Wanters' only (thus not offering plants)	-	-	-	-	2
List requesters only (neither offering plants nor having 'wants')	19	13	3	17	15
Total number of participants	**27**	**20**	**10**	**25**	**26**

Participation in the scheme and the number of taxa offered is still high and almost unchanged from 2009.

I would like to pay tribute to Ken Trewren who has been a major contributor to the Scheme for many years. He will be greatly missed.

BOOKSALES ORGANISER – Frank Katzer

BPS Booksales had another very busy year. I do have to thank Yvonne Golding, the BPS General Secretary, for taking books to several meetings across England during 2010 and making sure that a variety of books were available to a greater proportion of the BPS membership. In total more than £2,000 worth of books were sold, making it a very profitable year. I would like to thank Frank McGavigan for donating some of his fern books to Booksales. BPS Booksales also received the fern book collection of Cyril Morgan as a bequest and I acquired a further small book collection for Booksales. We also obtained copies of David Lellinger's multilingual glossary for fern nomenclature from the American Fern Society. All in all it has been another fairly eventful year.

MERCHANDISE ORGANISERS – Bryan & Gill Smith

We had another reasonably successful year for Merchandising in 2010, with around 35 mail orders (which came from the UK, Australia, Canada, Germany, Netherlands and USA). This compared with 20 mail orders (from the UK, Canada and Eire) in 2009, so there were more UK and overseas orders. Face-to-face selling continued and was again our main source of income. We sold merchandise at the London AGM in April, at the South Yorks

national meeting in September and at the Cambridge indoor meeting in November. As usual, members had the option to save postage by pre-ordering items for meetings we attended. We also had success in selling items to the public at the NEC Gardeners' World Live show in Birmingham in June. Colleagues in the north, as before, sold merchandise at the Southport show in August, at the AGM of the North-West Regional Group, at one of the Manchester Group meetings, and on the exploratory China trip. Overall, sales amounted to nearly £1,200. Further details can be found in the Merchandise section of the Treasurer's accounts.

Encouraged by the success of the BPS calendar, we produced a 2011 calendar, again featuring several photos submitted by BPS members. It was touch and go though, as our usual local supplier went bankrupt, but we did manage to find an excellent replacement at the last minute. It is still a struggle to encourage members to submit photos for the calendar – so, come on, don't be shy – this is your chance to have your photos in print. As you will see from the 2011 calendar and the Hooker photo, anything related to ferns will be considered.

The current merchandise list (October 2010), which was distributed with the autumn mailing, boasts some 18 ranges and a total of nearly 60 individual products. During the year, we introduced a jute bag – handy for carrying plants, books, shopping etc. and, as it displays the BPS logo it gives the Society good advertising. Mention should also be made of the popularity of the double hand lens, introduced in 2009, which we manage to get at a very competitive price – members certainly know a bargain when they see it!

The list continues to be available through the BPS website, and we send out new order forms when we fulfil orders.

HORTICULTURAL INFORMATION ADVISER – Matt Busby

This year I have received six queries concerning the cultivation of ferns plus one query about a problem of iron deficiency in composts and one from a would-be fern grower asking for addresses of fern nurseries in his area. I am pleased to report that all the queries were dealt with satisfactorily. I have had one or two instances where I have been asked to identify a fern from photographs. Unless the illustration shows very clear field characters, I am very reluctant to attempt to put a name to it myself; I prefer to leave those decisions to others.

I am always pleased to receive queries concerning problems with the raising and growing of ferns either by post or e-mail.

ARCHIVIST – Matt Busby

I am pleased to report that the archive, now situated at the University of Manchester's Oxford Road Museum, has been consulted by various members during the year. Items continue to be donated but there is a paucity of ferny items from the nineteenth century. Recently we were asked to supply a photograph of a research academic who was a member of this Society; regrettably, as yet we have not able to supply one. We are always anxious to acquire photographs, documents, horticultural catalogues and press cuttings for the archive. Pre-1890 items are particularly valuable and can be sent to me at my home address. Collection can be arranged for heavy or bulky items. In the near future, guidelines on access to and use of the archive will be available to members and other users.

My thanks to the Committee and in particular to Yvonne Golding and the Manchester Museum staff for the valuable assistance given to me during the year.

CULTIVAR REGISTRATION SUBCOMMITTEE – Martin Rickard

Registers of two genera are currently in various stages of production: a draft register of *Osmunda regalis* cultivars by Matt Busby is nearing completion and the much larger *Polypodium* document is being converted from text into a database.

Fern Labelling Project at Arduaine Garden, Argyll

(A Grant from the Centenary Fund)

Back in 2009 when the National Trust for Scotland announced that Arduaine Garden in Argyll was to close for financial reasons there was considerable enthusiasm among locals and visitors alike for supporting the continued operating of this lovely place. We were already suffering from an infection of *Phytophthora ramorum*, the misnamed 'sudden oak death', which was causing some problems with our shrub collection, and we were pleased to discover just how many people valued this garden and did not wish to see it disappear.

The BPS Scotland Group had visited the garden not long before and Frank McGavigan suggested that the Society might be interested in helping out, particularly as we were rapidly expanding our fern collection. After discussion, it was agreed that rather than make what would be a comparatively small contribution to the required one million pounds, it might be better to fund a project that would more directly help us to maintain the fern collection.

As I am very keen on recording plant accessions to the garden and keeping as much information on them as possible, I agreed that a labelling programme would benefit both staff and visitors alike. There's nothing like passing and repassing a label during one's daily round to impress identities upon the already struggling brain! So I made a list of some 250 fern taxa, Frank helped me to check identities and locations, and in due course we took delivery of a box of smart engraved labels, to be mounted on aluminium legs. A large number of these have gone out and some are still waiting for their namesakes to be big enough to be planted out.

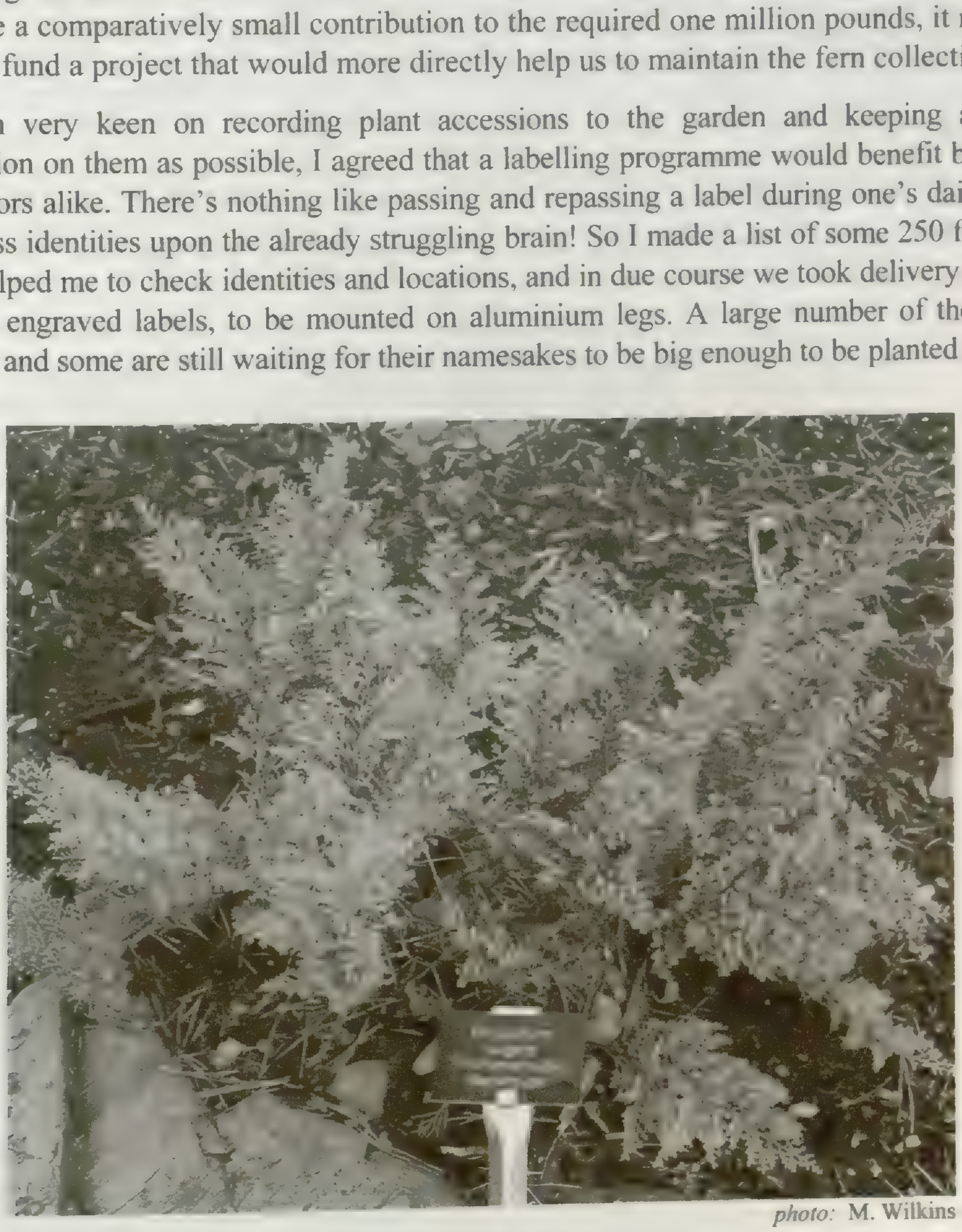


photo: M. Wilkins

***Polypodium vulgare* 'Trichomanoides Backhouse' with new BPS-funded label**

I was pleased to have many of these labels on show when the BPS next visited us in July 2010, including a contingent from the USA. I am grateful to the late Ken Trewren for identifying our massive specimen of golden male fern as *Dryopteris affinis* subsp. *cambrensis*, but I received a bit of a shock when it was kindly pointed out to me that quite a number of other ferns were in fact incorrectly labelled! Martin Rickard (for the cultivars) told me that two plants bought

from a UK nursery, one as *Dryopteris affinis* 'Stableri' and the other as *Dryopteris filix-mas* 'Barnesii', were in fact both the plant known as *Dryopteris* × *complexa* 'Stableri' (crisped) and Mary Gibby (for the species) pointed out that a group of ferns I had grown from the BPS spore exchange as *Polypodium* (Chile) were actually a species of *Doodia*, and that *Dryopteris carthusiana* was something else completely different! Thank you both for this information – I have to assume that what is on the label is correct when I acquire a plant, until proved otherwise! So unfortunately some of my new labels had to be removed until such time as I can acquire the correct plants to accompany them back into the garden! I thought of these ferns trying to live up to their labels and wondered whether they felt an empathy with Oscar Wilde when he said "I find it harder and harder every day to live up to my blue china"!

So my sincere thanks to the BPS, and to Frank McGavigan in particular for encouraging me to apply for a grant to begin the labelling of the Arduaine fern collection. I hope that this will continue as the collection grows and that BPS members who find themselves in the West Highlands will call in to see the garden and make themselves known to me.

Maurice Wilkins, Head Gardener

Training in the Cultivation of Living Fern Collections

(A Grant from the Greenfield Fund)

In January 2010 I applied for funding from the BPS Greenfield Fund to enable me to go on a ten-day research trip. My aim was to understand in more detail how to care for fern collections that originated from a range of habitats and are kept under glass in the UK. In particular I wanted to review and compare a range of different display styles and maintenance programmes through discussion with those who care for the collections, and in some cases to have hands-on participation in caring for collections. I aimed to gather and compare information on temperature, watering and feeding regimes, growing media and display methods. Through this experience I also aimed to improve my fern identification skills by seeing a range of ferns first-hand. The following is a brief diary of my trip.

Day 1 & 2. **Royal Botanic Gardens Kew** – After a detailed tour of the reserve and public display collections, including information on watering, maintenance and feeding regimes, I spent some time looking in more detail at examples of some of the different orders and their characteristics that I had been reading about in Robbin Moran's book *A Natural History of Ferns*. It was fascinating to see first-hand the characteristics described on a page. I was particularly taken with the *Marattiales* and their ear-like appendages, called stipules, from which they can be propagated.

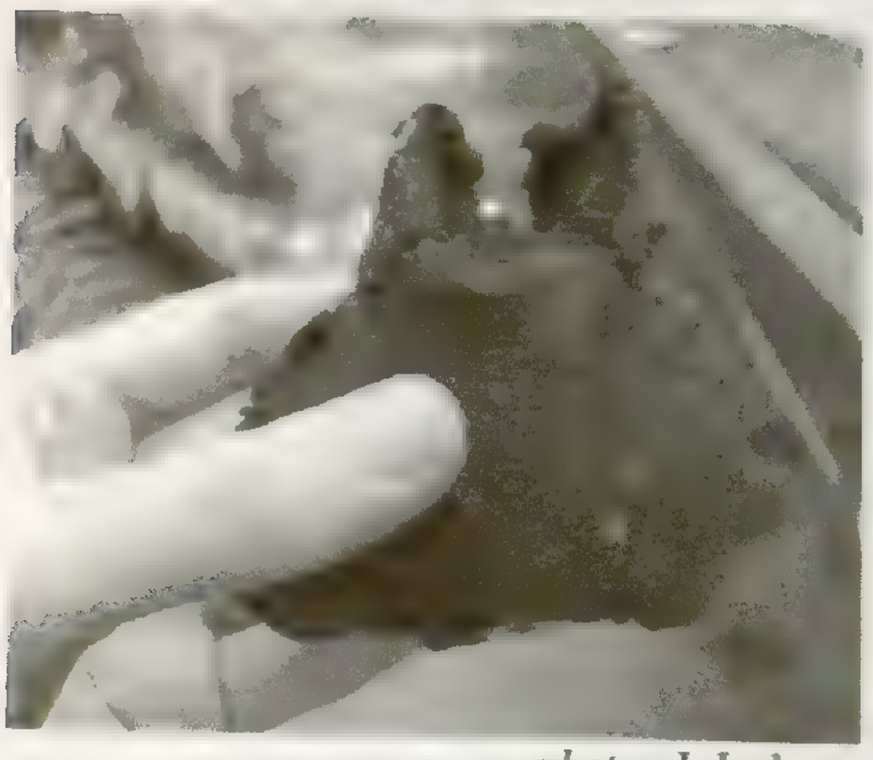


photo: J. Jephcott

A stipule from *Marattia* sp.

Nigel Rothwell gave me a detailed spore-sowing workshop; he also explained the correct way to take rhizome cuttings and showed me how to mount epiphytic species on bark.

Day 3. Most of this day was spent travelling up to Scotland but I did manage a brief stop at **Dawyck Botanic Garden**, where I saw the reintroduced native *Woodsia ilvensis*.

Day 4, 5 & 6. **Ascog Fernery, Benmore Botanic Garden and Arduaine Garden** – I spent the next three days at the BPS 'Argyll Gardens' meeting. It was a complete whirlwind, with the opportunity to find out about the care and display of ferns at Ascog and Benmore ferneries, plus the chance to see many natives and an amazing trip to a site called Puck's

Glen where I saw my first 'wild' filmy ferns, growing in huge sheets on the rocks surrounding a waterfall. It was beneficial to spend time with other BPS members who were all very helpful and it really increased my identification skills.

Day 7, 8 & 9. **Royal Botanic Garden Edinburgh** – I spent the next three amazing days running around after Andy Ensoll, scribbling as fast as I could in my notebook! I saw probably more than a hundred species of fern that I hadn't encountered first-hand before, and exhausted my camera. We looked in detail at different compost mixes used for growing ferns under glass, as well as different types of plant food. Andy gave me another spore-sowing workshop and it was great to be able to compare the different techniques. We also looked at how and when to collect spores for sowing and the best methods of storage. As anyone who has visited the fern house at Edinburgh will know, the display is to a fantastic standard and gave me lots of ideas to take back to Cambridge, if on a smaller scale!

photo: J. Jephcott

The Fern House at the Royal Botanic Garden Edinburgh

Day 10. **Glasgow Botanic Garden** – I had a day to look around Glasgow with Stevie Jakusz; it wasn't enough time! I hadn't realised what the glasshouses at Glasgow were like and in particular how extensive the reserve collections were. We focused mainly on the filmy-fern house and the methods used to maintain it.

I had a brilliant ten days, and came away with a huge amount of information that I can put to use caring for ferns at Cambridge University Botanic Garden, I have given a talk to the horticultural students and staff about my trip and given a couple of spore-sowing workshops.

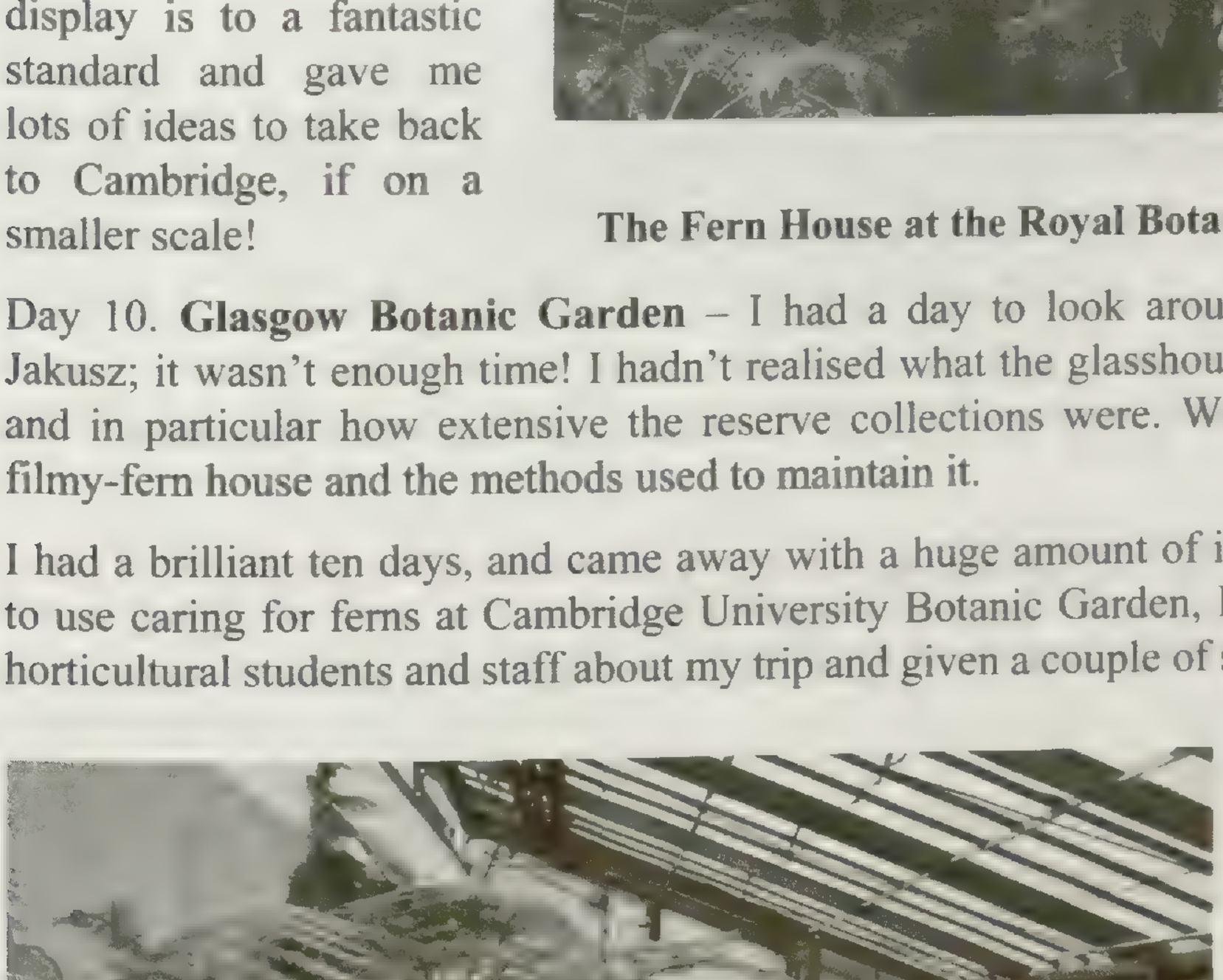


photo: J. Jephcott

The Fern House at Cambridge University Botanic Garden

I am really grateful to the BPS for helping to fund this trip and would like to thank everybody who I met and worked with during the ten days. In particular, Nigel Rothwell, Andy Ensoll and Stevie Jakusz for sharing their knowledge and generously donating plants to Cambridge University Botanic Garden to improve the fern collection there.

Janet Jephcott

OBITUARIES

KEN TREWREN

1944 – 2010

"Teessides's Mr Adventure goes off on his travels again" – so said the Middlesbrough Evening Gazette early in 1969. Having graduated in botany at Bangor University, local boy Ken Trewren had just returned from voluntary work in Lesotho and was about to start work in Zambia, the beginning of a lifetime as a tropical botanist. The headline attracted Kate, Ken's future wife. She was off to do VSO in Malawi and Ken, whom she vaguely knew as a school-friend of her brother, could be a useful source of advice on living and working in Africa. Initially they corresponded, not meeting properly until 1972, but this led to their marriage the following year, with their two daughters, Jenny and Cally, being born in 1974 and 1975.

Ken's career as agricultural researcher and adviser took the family all over the tropics and in particular to the Pacific islands, experiencing different lifestyles and escaping the material world. He encouraged in his children a love of marine life and gardening, but never lost his interest in the botany of his homeland and especially the fern flora. He had joined the BPS as a teenager in 1963 and continued in his enthusiasm for ferns and to be an active participant in Society field trips until his untimely death. Clive Jermy remembers one particular incident well: on a trip to the Isle of Mull (not renowned for its warm waters) Ken stripped off and dived into a loch to find *Isoetes*. Much later, Robert Sykes recalls Ken at Johnny's Wood in Borrowdale, confidently sorting out the stumps of some choice ferns that had been well chewed down by sheep, and in Scotland dangling by his finger tips to get a picture of the beautiful mountain bladder fern.

We all like to think we are fern enthusiasts but Ken took his own interest to a higher level, backing up mere enthusiasm with detailed study, a very discerning eye and dogged determination. As a result he had an extraordinary knowledge of British ferns. He made many discoveries, the most significant being the large population of *Trichomanes speciosum*, the Killarney fern, in the North Yorkshire Moors. The importance of this discovery is recognised in that the site is now regarded as being of European significance and is protected accordingly, although Ken was always happy to accompany keen ferners there.

Ken was also able to detect the buckler fern hybrid, *Dryopteris* × *ambroseae*, growing amongst an extensive population of *D. dilatata* in the local woods. This was particularly unusual as the hybrid's second parent, *D. expansa*, was not known from North Yorkshire. He had recognised the hybrid from its morphology – its form – but he knew that to prove his find it was important to study its cytology – the chromosomes. With chemicals supplied by Mary Gibby and after a crash course in cytology, he was able to confirm that the hybrid was triploid. With his good eye for detail and the additional skills in cytology, Ken went on to make further discoveries on other ferns, including polypodies, and, of course, he became an expert on the scaly male ferns, the *Dryopteris affinis* agg.

He did not keep his knowledge to himself. He wrote and illustrated a guide to *D. affinis* with annotated photographs of the key diagnostic features to explain with admirable clarity the variation in this difficult group of British ferns. He led 'affinis' workshops, and was never happier than when informally explaining the detailed differences in the field. And he never did this in a condescending or patronising manner, always matching his explanations to his audience's capacity to understand.

Ken made new discoveries in the *D. affinis* group – a new taxon in Wales and another from Kirkcudbrightshire, and at a recent BPS committee meeting it was unanimously agreed that we could best honour Ken by turning his affinis key into a fully illustrated book. Just a few

photo: A.J. Evans

Ken Trewren with *Dryopteris pseudodisjuncta*, Kirkbean Glen, Scotland, August 2010

days before his death he was discussing with Mary Gibby how best to organise the descriptions of the new taxa, so that they could be included.

For another BPS book, *Polystichum Cultivars* (BPS Special Publication No. 7), Martin Rickard and Robert Sykes could not find any hard shield fern cultivars in existence, until Ken showed them a rare and handsome crested form he had found in the wild. It is illustrated in the book with the name *Polystichum aculeatum* 'Ken Trewren', a tribute that pleased him. More recently, the Society was preparing a collection of *Dryopteris* to present to Highgrove for the Prince of Wales' sixtieth birthday. Many members were very generous, but Ken was a star, transforming the gift from a range of attractive garden plants into a serious collection with considerable scientific interest. It was a tour de force and he put the Society in his debt.

He was always generous with gifts of ferns from his garden and free with his knowledge to anyone who expressed a serious interest. He bore his learning lightly and with modesty, he suffered fools with remarkable tolerance, he was a fern obsessive and of course we loved him for that, but he talked interestingly and amusingly on other subjects too. He was always good company, a valued mentor and friend to many in the BPS. Kate is keen that we celebrate his life rather than mourn his passing. We can best do that by continuing his work, completing and publishing his affinis guide, but most of all by getting out into the field and studying ferns in detail, and then, as he so generously did, sharing what we learn with others.

I am heavily indebted to Kate Trewren, Mary Gibby and Robert Sykes, whose tributes to Ken, given at his funeral, largely form the basis of this obituary.

Frank McGavigan

IN MEMORIAM

We were also sorry to learn of the death of the following (date joined BPS in brackets):

Herr Sigfried Förster of Weinböhla, Germany (1998)

MEETINGS PROGRAMME 2011

Meetings Secretary: R.J. Cooke
Meetings Subcommittee: P.J. Acock, R. Golding, N.J. Hards, J.M. Ide, P.H. Ripley, M.H. Rickard, F.J. Rumsey, B.D. Smith

Sat. 19 - Sat. 26 March — **Overseas Field Meeting – Madeira**
Leader: Andrew Leonard

Sat. 9 April — **AGM & Spring Indoor Meeting – Dunchurch, Rugby, Warks.**
Leader: Matt Busby

Fri. 3 - Sun. 5 June — ***'Gardening Scotland' show, Edinburgh: BPS Stand**
Contact: Frank McGavigan

Sat. 4 - Sun. 5 June — **Weekend Field Meeting – Exmoor**
Leader: Paul Ripley

Mon. 13 - Mon. 27 June — ***Overseas Field Meeting with HFF – South-east USA**
Leaders: Naud Burnett & Kent Kratz Contact: Pat Acock

Fri. 1 - Sun. 3 July — **Weekend Field Meeting – Leicestershire & North Derbyshire**
Leader: Paul Ripley

Sat. 6 - Mon. 8 Aug. — **Weekend Field Meeting – Perthshire & Angus**
Leader: Heather McHaffie

Thurs. 18 - Sun. 21 Aug. — ***Southport Flower Show: BPS Stand**
Contact: Michael Hayward

Sat. 24 - Sun. 25 Sept. — **'Ferns & Fossils' – Royal Botanic Garden Edinburgh**
Contact: Frank McGavigan

Tues. 27 Sept. - Sat. 1 Oct. — **Week Field Meeting – Isle of Man**
Leader: Peter McEvoy Contact: Jennifer Ide

Sat. 29 Oct. — **Autumn Indoor Meeting – Royal Botanic Gardens, Kew**
Leader: Nigel Rothwell Contact: Pat Acock

* *Event supported by, but not organised by, the BPS.*

For further details of these meetings please see the Meetings Programme sheets sent to members with the autumn mailing and also available on the BPS website. For general enquiries about meetings, contact the Meetings Secretary (Meetings@eBPS.org.uk).

Regional Meetings

These meetings are open to all members, so if you are visiting one of the following areas you would be very welcome to join in. For details of meetings please see the BPS website or contact the regional organisers by e-mail, or by post enclosing a stamped addressed envelope.

Yorkshire — Bruce Brown, 4 Bank Parade, Otley, West Yorks. LS21 3DY
Yorkshire@eBPS.org.uk

South-East England — Paul Ripley, 2 Station Villas, Station Road, Appledore, Ashford, Kent TN26 2DF; SouthEast@eBPS.org.uk

East Anglia — Tim Pyner, 182 Southchurch Boulevard, Southend-on-Sea, Essex SS2 4UX; EastAnglia@eBPS.org.uk

North-West England — Peter Campion, Lake View, Castle Hill, Bassenthwaite, Keswick, Cumbria CA12 4RG; NorthWest@eBPS.org.uk

Cornwall — Matt Stribley, 8 St George's Road, Truro, Cornwall TR1 3JE
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Scotland — Frank McGavigan, 12 Glenbank Avenue, Lenzie, Glasgow G66 5AA
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S. Wales & Borders — Brian Dockerill, 19 Westfield Road, Glyncoch, Pontypridd, Mid-Glam., CF37 3AG; SouthWalesBorders@eBPS.org.uk

Manchester & N. Midlands — Yvonne Golding, 7 Grange Road, Buxton, Derbyshire SK17 6NH
ManchesterNorthMidlands@eBPS.org.uk

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BULLETIN

VOLUME 7 NUMBER 3 2010

CONTENTS

Retiring President's Address ..... R.W. Sykes 193

National Field Meetings

Var, South-East France ..... P.J. Acock *et al.* 195
South-West Ireland ..... J.A. Dennison *et al.* 198
Argyll Gardens, Scotland ..... R.G. Ackers, J. Jephcott & A. Tolman 205
North Cardiganshire, Wales ..... (*no report*)
Gardens of South Yorkshire ..... B. Dockerill & B.N. Brown 207
Northern Lake District ..... B.D. Smith, B.N. Brown & R.A. Dawes 210

Lecture Meetings & Day Visits

Spring Meeting, Natural History Museum, London ..... P.J. Acock 214
Autumn Meeting, Trumpington, Cambridge ..... A.R. Busby 215

Regional Meetings

Yorkshire Fern Group ..... B.N. Brown, B. Wright, A.J. Evans 217
South-East ..... T. Pyner, P.J. Acock 223
East Anglia ... T. Pyner, C. Berthold, B.R. Stevenson, P.J. Acock, B.D. Smith, M. Ghullam 224
North-West ..... P.J. Campion, S.M. Mees, F. Haigh, J.D. Grue 228
Botanical Cornwall Group ..... I.J. Bennallick & M.J. Stribley 233
Scotland ..... F. McGavigan, R. Golding, A.C. Wardlaw 236
South Wales & the Borders ..... B. Dockerill, S.C. Dockerill, S. Lewis 242
Manchester & North Midlands ..... Y.C. Golding, D.G. Bishop 244

GEP Excursion – Südtyrol, Italy ..... P.J. Acock 250

Horticultural Shows

BBC Gardeners' World Live, NEC ..... B.D. & G.J. Smith 251
Southport Flower Show ..... M. Hayward 252

Society News

Secretarial Notes 254
Minutes of 2010 AGM 258
2010 Accounts 260
Reports of Officers & Committee Appointees for 2010 263
Grants: Fern labelling project at Arduaine Garden ..... M. Wilkins 271
Training in the cultivation of living fern collections ..... J. Jephcott 272
Obituary: K. Trewren ..... F. McGavigan 274
In Memoriam 275
Meetings Programme 2011 276
Full Membership List ..... Centre insert

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